

CHAPTER 3.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 Effects Found Not Significant As Part of the EIR Process

The following issues were identified as potentially significant during the Notice of Preparation process, but were found not to be significant during preparation of the Draft SEIR: 1) geologic hazards; 2) hazards; and 3) hydrology and water quality.

3.1.1 Geologic Hazards

This section assesses the existing surface and subsurface soil and geologic conditions and features of the proposed Project site and analyzes the potential for impacts associated with these features. The previously certified EIR for the East Otay Mesa Specific Plan (EOMSP) identified a number of potential impacts to geology and soils for projects located within the Specific Plan Area, including: 1) potential for ground acceleration/shaking due to regional seismic activity; 2) certain areas are susceptible to liquefaction and seismically-induced settlement; 3) open reservoirs susceptible to overtopping during seismic events; 4) geologic materials may contain adverse bedding or other strata subject to failure; and 5) soils-related hazards such as erosion, expansion, and settlement. In conformance with EOMSP EIR Mitigation Measure 5a, a site-specific Geotechnical Investigation report has been prepared to assess the suitability of the site for development and to specifically address the applicable geologic hazards listed above. The analysis in this section is based in part on the geotechnical report prepared by Geocon Incorporated, titled “Geotechnical Investigation, 159-Acre Property – Alta Road and Airway Road, San Diego County, California,” dated February 28, 2005. A copy of the site-specific geotechnical report is included as Appendix I to this EIR.

3.1.1.1 *Existing Conditions*

Site Topography

The Project site is characterized by gently rolling terrain sloping toward the south. As depicted on Figure 1-15, *Topographic Map*, elevations range from approximately 566 feet Above Mean Sea Level (AMSL) at the northeast corner of the site to 480 AMSL at the southeast end of the property.

Geologic Units

The following geologic units were encountered during the exploratory field investigation of the site:

Undocumented Fill Soils (Qudf)

Surficial undocumented fill soils in the form of mounds were encountered along the top to the two existing ridges located at the south-central and southeast ends of the site. Undocumented fill soils on-site are characterized as soft to stiff, damp to moist, dark brown to grayish brown, sandy clay with gravel and clayey sand. These soils range from three to six feet in depth.

Topsoils (no symbol)

Topsoils ranging from 1.5 to 4.5 feet thick mantle the entire property. These soils are characterized as soft to medium, stiff, damp to very moist, dark gray to dark grayish brown, slightly sandy clays with gravel.

Recent Alluvium (Qal)

Alluvial soils were encountered in the bottom of the north-south trending drainage located on the eastern portion of the property and range in thickness from nine to 10 feet. On-site alluvial soils are characterized as soft to stiff, very moist, dark gray brown, silty, sandy clays with gravel and cobble.

Terrace Deposits

Terrace deposits underlie the topsoil in the southern-half of the Project site. On-site terrace deposits consist of two fairly distinct layers. The upper layer is characterized by one to eight feet of very stiff to hard, moist, brown, sandy clay. The lower level consists of dense to very dense, moist, tan to brown, silty and clayey sand with varying amounts of gravel.

Otay Formation

The northern half of the Project site is underlain by Otay Formation deposits. The Otay Formation primarily consists of dense, damp to moist, light gray, silty, fine to medium, slightly cemented sandstone and fine sandy siltstone with lenses of silty and sandy claystone, and ranges in thickness from 13 to 16.5 feet.

Soils

The proposed Project site is mapped by the United States Department of Agriculture, Soil Conservation Service Survey (1971) as containing the soil types shown below in Table 3.1.1-1, *On-Site Soil Types*, and depicted on Figure 3.1.1-1, *Soil Types and Location*. Certain types of clay soils expand when they are saturated and shrink when dried; these are called expansive soils. Table 3.1.1-1 also summarizes on-site soils' potential for expansion.

Table 3.1.1-1 ON-SITE SOIL TYPES

MAP SYMBOL	MAPPING UNIT	ACREAGE	POTENTIAL FOR EXPANSION
DaC	Diablo clay, 2 to 9 percent slopes	47.3	Yes
DaD	Diablo clay, 9 to 15 percent slopes	2.4	Yes
HrC	Huerhuero loam, 2 to 9 percent slopes	32.3	Yes
HrC2	Huerhuero loam, 5 to 9 percent slopes, eroded	25.6	No
ScA	Salinas clay, 0 to 2 percent slopes	53.7	Yes

Groundwater

Groundwater seepage was observed in only one of the 22 exploratory trenches on-site. In the observed instance, a localized perched groundwater condition was encountered at a depth of 15.5 feet. Perched groundwater conditions should be expected to occur seasonally; however, groundwater is not expected to comprise, or contribute to, a geologic hazard on-site.

Seismicity

As depicted on Figure 3.1.1-2, *San Diego County Alquist-Priolo and County Special Study Fault Zones Map*, the Project site is not located within an Alquist-Priolo (AP) Earthquake Fault Zone or a County Special Study Zone, and there are no known active faults that traverse the site. The nearest known active fault to the Project site is the Rose Canyon Fault, located approximately 13.5 miles

northwest of the site. The Project would be subject to ground shaking in the event an earthquake occurred on the Rose Canyon Fault, the Coronado Bank Fault, Elsinore Fault or other faults within the southern California/northern Baja California area.

Seismic Hazards

Secondary hazards associated with earthquakes include fault rupture, ground failure and unstable soils and slopes. Each of these hazards is briefly described below.

Surface Rupture

Surface rupture is expected to occur along pre-existing, known active fault traces; however, surface rupture can also splay or 'step from' known active faults or rupture along unidentified traces. No known faults are mapped trending through or towards the site. Therefore, the potential for fault-related surface rupture on the Project site is very low.

Liquefaction

Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by shaking of the ground caused by an earthquake. Liquefaction occurs in saturated soils; that is, soils in which the space between individual particles is filled with water. Earthquake shaking can cause water pressure to increase to the point where the soil particles can readily move with respect to each other, causing additional seismically-induced ground motion. Susceptibility to liquefaction is generally higher in unlithified granular soils that are located in areas of shallow (*i.e.*, 10 feet or less below the surface) groundwater. Other factors controlling liquefaction include intensity and duration of ground motion and in-situ stress conditions of soils. Due to the relatively high in-situ density of the underlying soils and the lack of permanent near-surface groundwater, the potential for liquefaction occurring at the site is considered very low.

Unstable Soils and Slopes

No evidence of historic or potential landslides or slope instability was discovered on-site or in the immediate Project area during the geotechnical survey.

3.1.1.2 East Otay Mesa Specific Plan Final EIR

The Final EIR for the EOMSP evaluated impacts associated with Geologic Hazards under the issue area of "Geology and Soils," and concluded that significant but mitigable impacts would result from buildout of the EOMSP area. Potential geological impacts identified by the EOMSP Final EIR included the following: 1) potential for ground acceleration/shaking due to regional seismic activity; 2) certain areas are susceptible to liquefaction and seismically induced settlement; 3) open reservoirs on-site are susceptible to overtopping during seismic events, resulting in flooding of downstream areas; 4) geologic materials may contain adverse bedding or other strata subject to failure; and 5) soil related hazards such as erosion, expansion, or settlement could occur.

The County of San Diego determined that the proposed Project has the potential for geologic hazards as identified in the EOMSP Final EIR, and that a site-specific geotechnical investigation was necessary to evaluate Project-specific geologic impacts and determine compliance with the mitigation measures identified in the EOMSP EIR.

3.1.1.3 Analysis of Project Effects and Determination as to Significance

Fault Rupture

Guidelines for the Determination of Significance

The Project would have a significant adverse effect related to geologic hazards if any of the following would occur as a result of a Project-related component:

- (1) The Project proposes any building or structure to be used for human occupancy over or within 50 feet of the trace of an Alquist-Priolo fault of County Special Study Zone fault.*
- (2) The Project proposes the following uses within an AP Zone which are prohibited by the County:*
 - a. Uses containing structures with a capacity of 300 people or more. Any use having the capacity to serve, house, entertain, or otherwise accommodate 300 or more persons at any one time.*
 - b. Uses with the potential to severely damage the environment or cause major loss of life. Any use having the potential to severely damage the environment or cause major loss of life if destroyed, such as dams, reservoirs, petroleum storage facilities, and electrical power plants powered by nuclear reactors.*
 - c. Specific civic uses. Police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities.*

Significance Thresholds 1 and 2 were selected to address Section VI.a of Appendix G of the State CEQA Guidelines. In accordance with State Mining and Geology Board criteria, the area within 50 feet of the trace of an AP fault shall be presumed to be underlain by active branches of that fault and no structures shall be permitted in the area, unless a geologic investigation can prove otherwise.

Analysis

According to the site-specific geotechnical investigation prepared for the property, no known faults traverse the site. Also, as depicted on Figure 3.1.1-1, the Project site is not located within an Alquist-Priolo Earthquake Fault Zone or a County Special Study Fault zone. Accordingly, implementation of the Project would not place a structure within 50 feet of an Alquist-Priolo fault or a County Special Study Zone fault, and the Project would not propose land uses within an Alquist-Priolo zone that are prohibited by the County. Accordingly, no impact would occur.

Ground Shaking

Guidelines for the Determination of Significance

The Project would have a significant adverse effect related to geologic hazards if the following would occur as a result of a Project-related component:

- (3) The Project would be located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the project does not conform to the Uniform Building Code (UBC).*

Significance Threshold 3 is analyzed in this SEIR to address Section VI.a.ii of Appendix G of the State CEQA Guidelines and relies upon conformance to the UBC Seismic Hazards Standards for construction within areas prone to ground shaking.

Analysis

The nearest known active fault to the Project site is the Rose Canyon Fault, located approximately 13.5 miles to the northwest of the property. A major earthquake along the Rose Canyon Fault, the Coronado Bank Fault, Elsinore Fault or other faults within the southern California/northern Baja California area, could cause moderate to severe ground shaking at the site. However, all of San Diego County is located within Seismic Zone 4, thus the seismic ground shaking risk for the proposed Project site would not be considered substantially different than that of similar properties in the County. In accordance with EOMSP EIR Mitigation Measure 5A and standard regulatory procedure, the Project would be required to conform to the current applicable UBC requirements for seismic design safety. All future site plans and permits would be required to conform to site-specific geotechnical analyses, which would incorporate the preliminary recommendations contained in the Project Geotechnical Investigation report as well as site-specific recommendations for the future site plans and permits. Mandatory compliance with the UBC and the design and earthwork recommendations contained within the Project Geotechnical Investigation report would ensure that impacts related to ground shaking would be less than significant.

Liquefaction

Guidelines for the Determination of Significance

The Project would have a significant adverse effect related to geologic hazards if the following would occur as a result of a Project-related component:

- (4) The Project site has potential to expose people or structures to substantial adverse effects because:*
 - a. The Project site has potentially liquefiable soils; and*
 - b. The potentially liquefiable soils are saturated or have the potential to become saturated; and*
 - c. In-situ soil densities are not sufficiently high to preclude liquefaction.*

Significance Threshold 4 was selected to address Section VI.a.iii of Appendix G of the State CEQA Guidelines. This threshold relies on guidance provided by the State Department of Mines and Geology Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*. An affirmative response to all of the criteria in the threshold would be considered a significant impact.

Analysis

Based on information presented in the Project-specific geotechnical investigation report, the potential for liquefaction occurring at the site is very low because underlying soils contain in-situ densities high enough to preclude liquefaction, and underlying soils are not saturated and do not have the

potential to become saturated due to the lack of permanent near-surface groundwater. Accordingly, implementation of the Project would not expose people or structures to substantial adverse effects related to liquefaction; impacts would be less than significant.

Landslides

Guidelines for the Determination of Significance

The Project would have a significant adverse effect related to geologic hazards if any of the following would occur as the result of a Project-related component:

- (5) *The Project site would expose people or structures to substantial adverse effects, including risk of loss, injury, or death involving landslides.*
- (6) *The Project is located on a geologic unit or soil that is unstable, or would become unstable as a result of the Project, potentially resulting in an on- or off-site landslide.*
- (7) *The Project site lies directly below or on a known area subject to rockfall which could result in collapse of structures.*

Significance Thresholds 5, 6, and 7 are analyzed in this EIR in response to Section VI.a.iv of Appendix G of the State CEQA Guidelines.

Analysis

The Project site and its surrounding vicinity are relatively flat and gently sloping, and do not feature significant slopes or rock outcrops. No landslides have been previously recorded, and field reconnaissance of the site by the Project geologist did not identify substantial risks for future landslides. Accordingly, implementation of the Project would not expose people or structures to substantial adverse effects, including risk of loss, injury or death involving landslides, and implementation of the Project would not result in an on- or off-site landslide. Also, due to the relatively flat nature of the Project site and its surrounding vicinity, and the absence of rock outcrops, the Project is not in an area subject to rockfall. Therefore, implementation of the Project would not result in substantial adverse effects related to landslides, and impacts would be less than significant.

Expansive Soils

Guidelines for the Determination of Significance

The Project would have a significant adverse effect related to geologic hazards if the following would occur as the result of a Project-related component:

- (8) *The Project is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), and does not conform to the Uniform Building Code.*

Significance Threshold 8 was selected to respond to Section VI.d of Appendix G of the State CEQA Guidelines. This significance threshold relies upon conformance to the UBC's Expansive Soil Standards for construction on soils that are within a high shrink/swell category as defined by the U.S. Department of Agriculture Soil Survey.

Analysis

The geotechnical reconnaissance performed for the subject property identified the following geologic formations within areas proposed for grading and development by the Project: undocumented fill soils (Qudf), topsoils (no symbol), recent Alluvium (Qal), Terrace Deposits (Qt), and Otay Formation (To). The sandy member of the Terrace Deposits and Otay Formation possess a “low” to “medium” Expansion Index, while the topsoils, Alluvium, and clayey member of the Terrace Deposits possess a “high” Expansion Index, as defined in Table 18-1-B of the UBC.

In accordance with standard regulatory procedure, the Project would need to conform to the current applicable UBC requirements for the treatment of expansive soils. In addition, as a condition of Project approval, the County would require the Project to comply with all preliminary site design and earthwork recommendations contained within the Project Geotechnical Investigation report to remediate expansive soils (See Appendix I). All preliminary site design and earthwork recommendations would be required by the County to be depicted on the grading plan(s) and adhered to during construction. Finally, all future site plans and permits would be required to conform to site-specific geotechnical analyses, which would incorporate the preliminary recommendations to remediate expansive soils contained in the Project Geotechnical Investigation report as well as site-specific recommendations for the future site plans and permits. Mandatory compliance with the UBC and the design and earthwork recommendations contained within the Project Geotechnical Investigation report would ensure that impacts related to expansive soils would be less than significant.

3.1.1.4 Cumulative Impact Analysis

Cumulative Impacts Identified by the EOMSP Final EIR

The EOMSP Final EIR concluded that no cumulatively significant impacts to geology and soils would occur because any such impacts would be “site-specific.”

Project-Specific Cumulative Impact Analysis

As noted above, all potential project-specific impacts related to geologic hazards would be below identified significance guidelines through conformance with geotechnical recommendations and established regulatory requirements as part of the project design. Potential geologic and soils effects are inherently restricted to the areas proposed for development and would not contribute to cumulative impacts associated with other existing, planned, or proposed development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) the proposed development, and are specific to on-site conditions. Accordingly, addressing these potential hazards for the proposed development would involve using measures to conform to existing requirements, and/or site-specific design and construction efforts that have no relationship to, or impact on, off-site areas. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no connection to similar potential issues or cumulative effects to or from other properties.

3.1.1.5 Significance of Impacts Prior to Mitigation

No significant impacts were identified; therefore, no mitigation measures would be required. In addition, a site-specific geotechnical evaluation has been prepared for the proposed Project, in conformance with mitigation measure 5A from the EOMSP EIR.

3.1.1.6 Conclusion

Based on the analysis provided above, all potential geological impacts associated with the Project, including cumulative effects, are found to be less than significant. To ensure that no potentially significant geological hazards would occur as a result of the Project, recommendations included in the Project's Geotechnical Investigation report shall be incorporated into the Project and will be imposed as conditions of Project approval by the County. These environmental design measures are included in Chapter 7.2.7 of this document. In addition, as a standard measure of regulatory compliance, the Project would be required to conform to all applicable provisions of the UBC. Conformance with the UBC and implementation of the geotechnical design recommendations would avoid or reduce all potential impacts below identified significance thresholds. Accordingly, no mitigation measures would be required.

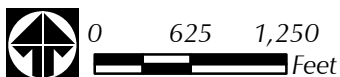
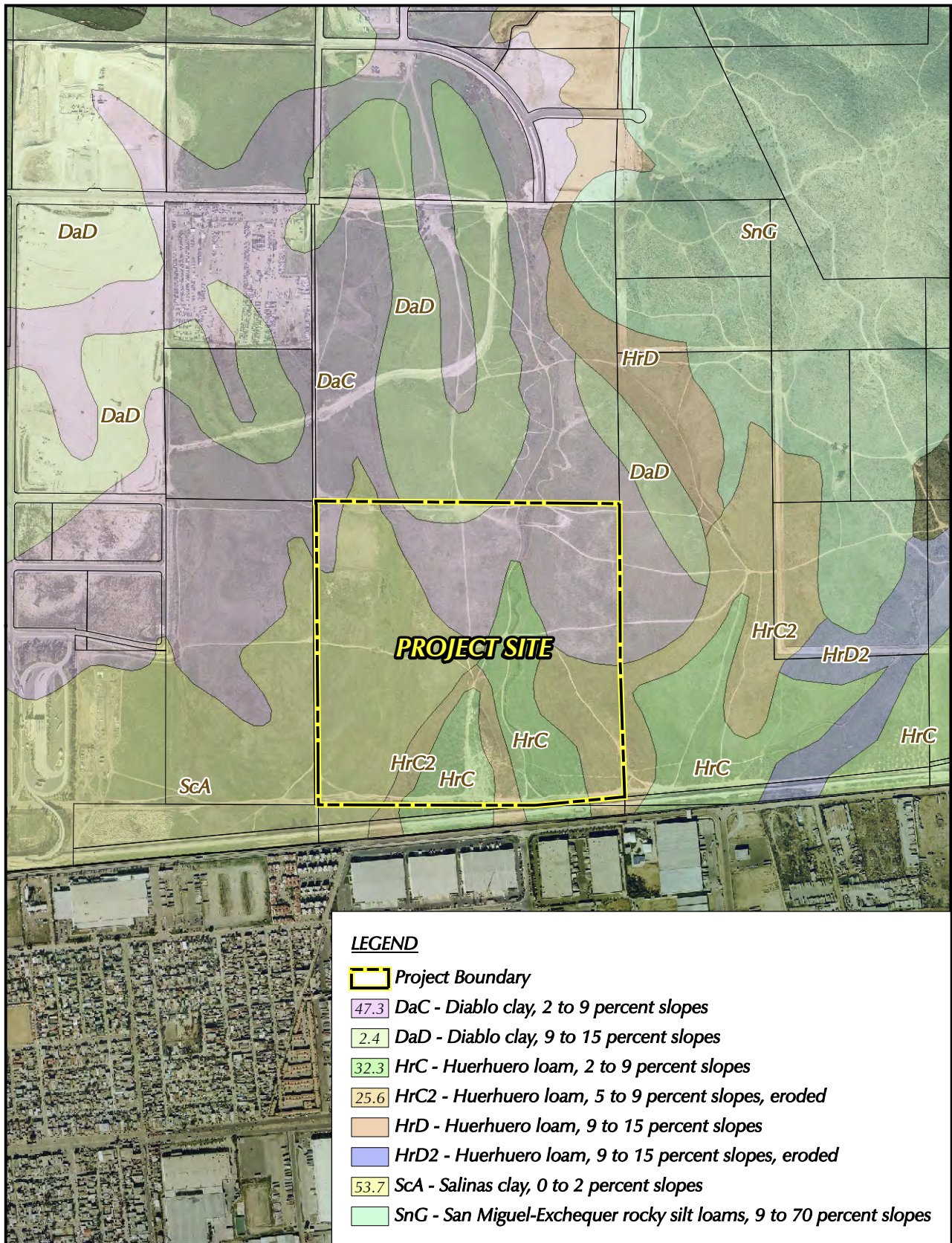


FIGURE 3.1.1-1
Soil Types and Locations

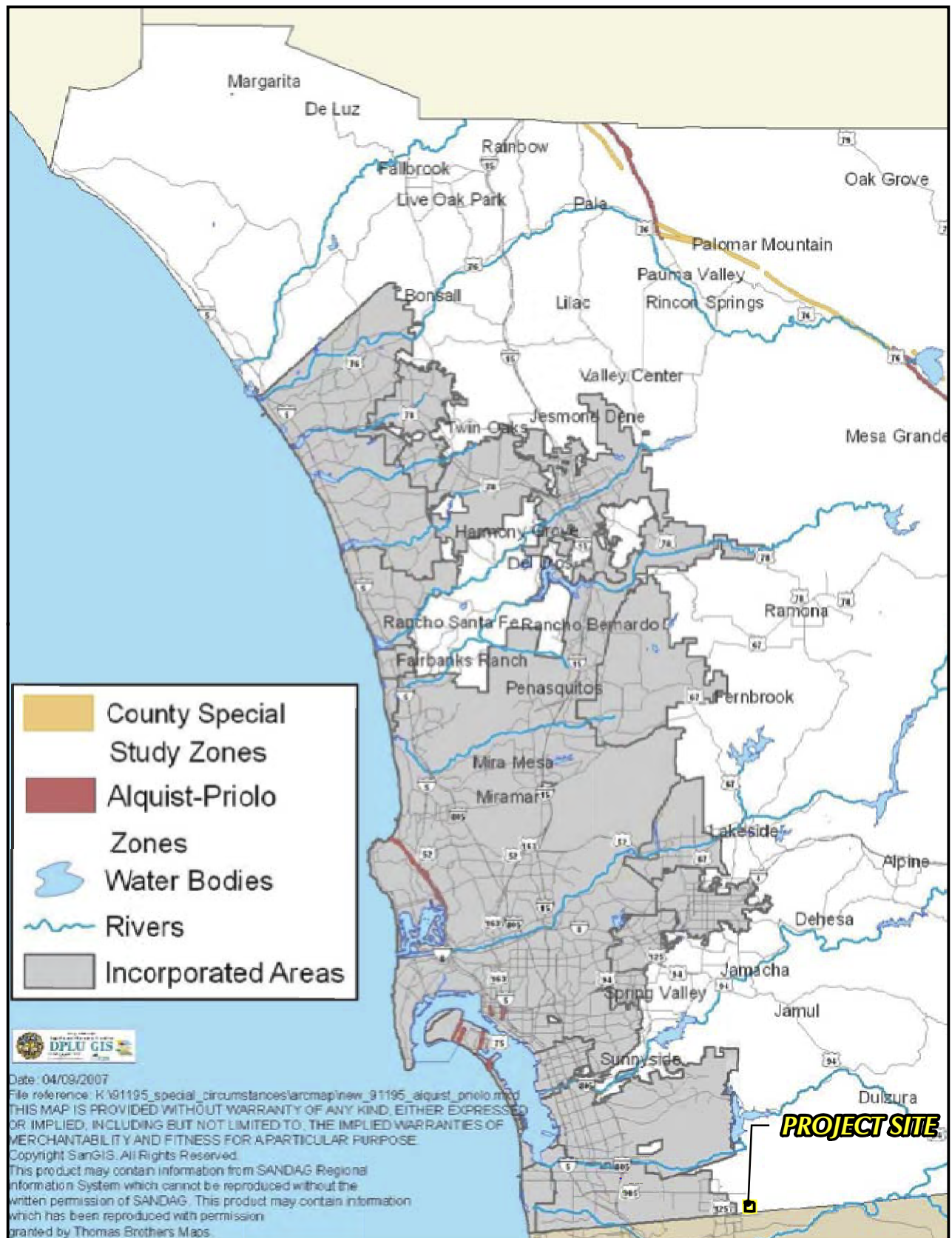


FIGURE 3.1.1-2

San Diego County Alquist-Priolo and County Special Study Fault Zones Map

3.1.2 Hazards

The previously certified EIR for the East Otay Mesa Specific Plan (EOMSP) identified significant and mitigable impacts for Health and Safety related to the use of hazardous materials by industrial operations and transportation of hazardous materials. Mitigation measures were identified to reduce potential impacts related to hazardous materials to below a level of significance. The proposed Project and future development permits for the Project site would be required to comply with these mitigation measures, which would reduce Project impacts related to hazardous materials to below a level of significance. Chapter 7.0 of this SEIR, *List of Mitigation Measures and Environmental Design Considerations*, includes a summary of all of the applicable mitigation measures from the EOMSP EIR which would continue to be enforced upon approval of the proposed Project. Because impacts associated with hazardous materials already have been determined to be less than significant with incorporation of the applicable mitigation measures, no additional hazardous materials analysis is warranted in this SEIR.

Since the EOMSP EIR was adopted, there have been changes in the circumstances under which the EOMSP was undertaken related to wildland fire hazards. San Diego County has been subjected to severe wildland fires in recent years which pose serious threats to development in close proximity to wildlands. Also, the San Diego Regional Water Quality Control Board has directed co-permittees, including the County of San Diego, to implement hydromodification requirements to limit the discharge and duration of stormwater runoff. The Project has been designed in conformance with the hydromodification standards, and as a result there is the potential for standing water to be present in proposed detention basins following storm events. The presence of standing water on-site may result in vector (mosquito) breeding, which could adversely affect human health. Accordingly, this section focuses on the potential for the Project site to be exposed to adverse impacts associated with wildfires and vectors (mosquitoes). The analysis in this section is based on a Fire Protection Plan (FPP) prepared by Hunt Research Corporation, titled “Conceptual Fire Protection Plan for Otay Business Park” (July 10, 2008), provided as Appendix E. This section also references a Vector Control Plan prepared by Kimley-Horn and Associates that is included in the Project’s Storm Water Management Plan (dated January 8, 2010), which is provided as Appendix F2.

3.1.2.1 Existing Conditions

Fire Safety

Fire Service

The Project site is served by the San Diego Rural Fire Protection District. The nearest fire station to the site is the Otay Mesa Station (Station #68), located at 413 Alta Road, approximately 2.9 miles north of the site. The NOP prepared for the Project and distributed for public review in June 2008 indicated that the proposed Project would be required to annex into the San Diego Rural Fire Protection District (SDRFPD). However, based on subsequent communication from LAFCO (June 23, 2008; refer to SEIR Appendix A), it was determined that the proposed Project site already is within the SDRFPD and no annexation would be required.

Wildland Fire Hazards

The Project site lies within an Urban-Wildland Interface (UWI) area, and is located within a “high” to “very high” wildfire hazard area, as mapped by the California Department of Forestry and Fire Protection. The site exhibits evidence of past fires; however, there is no recent history of wildfire at the Project site, although there is a recent history of wildfires occurring in the immediate area. The

site is located approximately 1.5 miles east of the Otay Fire, which burned approximately 46,291 acres in October 2003, and approximately 2.75 miles south of the Harris Fire, which burned approximately 90,440 acres in October 2007. Potential wildfire fuel loads on-site and in the surrounding areas are relatively high, and primarily consist of tall, dry grasses.

Vectors (Mosquitoes)

Mosquitoes have the potential to carry disease, representing a potential adverse effect to human health if potential vector breeding sources are not managed properly. The Project site does contain several vernal pools and road pools, which are characterized by temporary/seasonal pools of water. Vernal pools and road pools do not provide suitable habitat for mosquito breeding when dry; however, when filled, vernal pools and road pools contain standing water that may provide suitable breeding habitat for mosquitoes. No known mosquito, or other vector, issues have been reported for the site.

3.1.2.2 Analysis of Project Effects and Determination as to Significance

East Otay Mesa Specific Plan Final EIR

The Final EIR for the EOMSP evaluated the issue of Hazards under the subheading, “*Health and Safety*.” The Final EIR indicates that implementation of the EOMSP would result in significant but mitigable impacts to Health and Safety. Specifically, the EOMSP indicates that the light industrial uses have the potential to use hazardous materials, and that industrial and commercial activities occurring to the south in Tijuana, Mexico could expose people residing or working in the EOMSP area to hazardous materials. In addition, the Final EIR identifies impacts associated with the transportation of hazardous materials to and from the EOMSP site which could expose people to these substances.

Since the EOMSP Final EIR was certified in 1994, there have been changes in the circumstances under which the project was undertaken related to Hazards. The Project site is located within the declared UWI area or a Hazardous Fire Area, and FPP was prepared by the Project applicant and approved by the Fire Chief and DPLU (as a general proposal) pursuant to Article 86, Section 8601 of the 2001 California Fire Code. The FPP assesses fire safety issues, including water supply, access, building ignition and fire resistance, fire protection systems and equipment, defensible space, and vegetation management. In addition, the County of San Diego has implemented hydromodification requirements to limit the discharge and duration of stormwater runoff. The Project has been designed in conformance with the hydromodification standards, and as a result there is the potential for standing water to be present in proposed detention basins following storm events. The presence of standing water on-site could result in vector (mosquito) breeding, which may adversely affect human health. Therefore, based on the potential for new impacts from potential hazards that were not previously disclosed the County of San Diego has determined that a supplemental analysis of impacts due to hazards is required in order to identify, disclose, and mitigate for any previously undisclosed impacts that could result from Project implementation.

Wildfire Regulations

Guidelines for the Determination of Significance

The Project would have a significant adverse effect related to hazards if any of the following would occur as a result of a Project-related component:

- (1) The Project cannot demonstrate compliance, or offer Same Practical Effect, with applicable fire regulations, including but not limited to the California Fire Code, California Code of Regulations, County Fire Code, or the County Consolidated Fire Code.*
- (2) The Project is inconsistent with the recommendations (including fuel modification) of a required comprehensive Fire Protection Plan.*

Threshold 1 addresses the Project's compliance with existing state and local wildland fire regulations, while Threshold 2 analyzes the Project's consistency with a comprehensive FPP prepared specifically for the Project and Project site. Inconsistency with Threshold 1 and/or 2 may result in a significant risk of loss, injury, or death.

Analysis

The Project proposes to subdivide the property to allow for the future development of 59 industrial lots. No structures would be constructed as part of the Project, and the ultimate layout of future structures and intensity of future development are unknown at this time¹. Because the final layout and development intensity of the site is not known, a conceptual FPP has been prepared for the Project.

The conceptual FPP evaluates the Project site to determine whether special design features are warranted with future site development. As concluded in the FPP, after development the proposed Project site would not present a catastrophic wildland fire hazard, and the FPP does not provide any requirements that go beyond that already required by County Code, state law, or by the Rural Fire Protection District. The FPP recommends that landscaping along streets (both on- and off-site) exclude prohibited plants (as identified in Section 4 of the FPP), and this recommendation is reflected on the Project's landscape plans which excludes all of the prohibited species. In addition, the County would review future Site Plan applications to ensure that future site-specific landscape plans and building techniques adhere to the County of San Diego Fire Code (San Diego County Code of Regulatory Ordinances, Title 3, Division 5, Chapter 3), including Appendix II-A; the County of San Diego Building Code (San Diego County Code of Regulatory Ordinances, Title 5, Division 1); the State of California Building and Fire Code SFM Amendments, Chapter 7A, CBC/ART 86 CFC; California Public Resource Code Sections 4290 and 4291; and California Code of Regulations Title 14 Sections 1270-1299 "SRA Fire Safe Regulations." Future plans also would be subject to review by the Rural Fire Protection District. The FPP also recommends a fuel modification zone, which is already required pursuant to County Fire Codes, State law, and requirements of the Rural Fire Protection District. Standard compliance with these requirements would insure that Project implementation does not result in a significant risk of loss, injury, or death associated with wildland fire hazards. Accordingly, a significant impact resulting from a conflict with applicable fire regulations or an approved comprehensive FPP would not occur with Project implementation.

Emergency Response

- (3) The project cannot meet the emergency response objectives identified in the Public Facilities Element of the County General Plan or offer Same Practical Effect.*

¹ As described in Section 1.2.1.1 of this SEIR, the proposed Project would allow for the construction of a maximum of 2,106,561 s.f. of industrial/commercial land uses on the site.

Threshold 3 addresses the availability of adequate fire services in order to determine the Project's ability to receive sufficient emergency response in the event of a wildfire or other emergency.

Analysis

The Project site is located approximately 2.9 miles south of the nearest fire station (Otay Mesa Station #68). According to the Project's Fire Service Availability form (see Appendix E), the Project is eligible to receive service, and has an anticipated emergency response time of five (5) minutes. A five minute response time would be consistent with the emergency response travel time objective for industrial and commercial development, as established by the Public Facilities Element of the County General Plan. Accordingly, impacts would be less than significant.

Vectors (Mosquitoes)

- (4) *The project proposes a BMP for stormwater management or construction of a wetland, pond or wet weather basin that could create sources of standing water for more than 72 hours, and as a result, could substantially increase human exposure to vectors, such as mosquitoes, that are capable of transmitting significant public health diseases or creating nuisances.*

Threshold 4 addresses the Project's potential to create sources of standing water, which provides excellent habitat for vector breeding, particularly where water would be standing for more than 72 hours. 72 hours is the time generally required for mosquito breeding to occur.

Analysis

As discussed in SEIR Section 1.2.1.1, the proposed Project requires two detention basins to adequately attenuate stormwater runoff volumes generated on-site. In conformance with County of San Diego hydromodification requirements, each detention basin would incorporate low flow, outlet orifices to control the rate and amount of outflow discharged from the site, and as a result, the drawdown time after a 100-year storm event would be 9 days (216 hours) for the East Detention Basin and 15 days (360 hours) for the West Detention Basin, respectively. As such, the proposed detention basins would have the potential to be suitable habitat for mosquito breeding when conditions allow standing water for more than 72 hours. As discussed in SEIR Section 2.2, the Project would physically disturb the entire site and there would be no potential for on-site vernal pools and/or road pools to contain standing water that may provide suitable breeding habitat for mosquitoes.

The Project would implement a number of design and maintenance BMPs to prevent and control vectors (mosquitoes) from breeding in the on-site detention basins. As identified in the Project SWMP (see Appendix F2), the Project would regularly remove trash and debris from on-site detention basins, which would prevent obstruction of the outlet structure and facilitate drainage. The Project would also regularly remove vegetation from on-site detention basins, which would minimize suitable habitat for mosquito larvae and would allow for faster drainage of the detention basins. Also, the drawdown time of each detention basin would be monitored after significant rain events (*i.e.*, consistent rainfall over a period of 12 hours or longer). In the event the drawdown time exceeds 72 hours, a mosquito larvicide would be applied to the detention basins by a County-certified professional. Implementation of these design and maintenance BMPs would ensure to ensure that human exposure to vectors would not substantially increase. Accordingly, the Project would

minimize the amount of suitable vector breeding habitat on-site and impacts associated with vectors (mosquitoes) would be less than significant.

3.1.2.3 Cumulative Impact Analysis

Cumulative Impacts Identified by the EOMSP Final EIR

The EOMSP Final EIR (1994) indicated that implementation of the EOMSP would not result in cumulatively significant impacts to health and safety because adjacent development to the north and west of the EOMSP area was thought to be developed with residential uses.

Project-Specific Cumulative Impact Analysis

A study area was defined in order to assess the cumulative effect of the Project's impacts to hazards. In defining the study area, a number of factors were taken into consideration, including natural features, vegetation types, climate, and topography. The resulting study area encompassed the Otay Mesa portion of the County of San Diego and the eastern portion of Otay Mesa within the City of San Diego. With respect to fire hazards, this study area is appropriate because a majority of the Otay Mesa community is located within an UWI with high fire hazard risks. With respect to vector hazards, this study area is appropriate because a majority of the Otay Mesa community is, or will be, developed with large-scale mixed industrial land uses which would may require stormwater facilities that may create standing water, such as detention basins, to attenuate stormwater flows. Figure 3.1.2-1, *Cumulative Study Area – Hazards*, depicts the cumulative study area and lists all projects that are considered in this analysis.

Research was conducted that resulted in a list of 37 past, present, and reasonably foreseeable projects within the study area, and to determine whether any impacts have been identified related to fire hazards and vector hazards. EIR Section 1.7 provides a summary of all the projects that were considered along with their identified impacts to each of the environmental issue areas addressed by this EIR. As identified in EIR Table 1-7, *Cumulative Projects CEQA Summary*, no projects within the cumulative study area would result in potentially significant impacts related to fire hazards or vector hazards.

With respect to fire hazards, all development projects would be required to incorporate fire resistive construction and landscaping, as required by the County of San Diego Fire Code, including Appendix II-A; the County of San Diego Building Code; the State of California Building and Fire Code SFM Amendments, Chapter 7A, CBC/ART 86 CFC; California Public Resource Code Sections 4290 and 4291; and California Code of Regulations Title 14 Sections 1270-1299 "SRA Fire Safe Regulations." Accordingly, with mandatory compliance with the above regulations, all projects within the cumulative study area would reduce fire hazard risks to below a level of significance. Therefore, because there are no additional projects within the study area that would result in adverse fire hazard impacts, and because the Project would implement mitigation for potentially significant fire hazard impacts, the Project would not result in a significant cumulative impact due to fire hazards.

With respect to vector hazards, all development would be required to comply with the vector control requirements of the County of San Diego Department of Environmental Health (DEH), and would subject to monitoring by the DEH's Vector Control Program. Accordingly, all projects within the cumulative study area would minimize the amount of suitable vector breeding habitat to ensure that

human exposure to vectors would not increase. As such, implementation of the Project would result in a less than significant cumulative impact due to vector hazards.

3.1.2.4 Significance of Impacts Prior to Mitigation

No significant impacts were identified; therefore, no mitigation measures would be required.

3.1.2.5 Mitigation

Mitigation Measures from the EOMSP Final EIR

Mitigation measures were identified by the EOMSP Final EIR (1994) to address impacts to Health and Safety resulting from implementation of the EOMSP, and include the following:

- 10A. Any industrial development adjacent to residential uses shall submit a Hazardous Materials and Management Plan to the County Department of Environmental Health for approval.*
- 10B. Transportation of hazardous substances shall be conducted in accordance with the California Code of Regulations and the Code of Federal Regulations.*

These mitigation measures would not apply to the proposed Project. The proposed Project site is surrounded on three sides by planned light industrial land uses, and abuts a vacant piece of land and the U.S./Mexico international border on the south; as such, the Project site is not located adjacent to residential uses. Mitigation Measure 10B requires compliance with existing state and federal law which already would apply to all subsequent implementing projects. Additionally, as noted in the above analysis, implementation of the proposed Project would not result in a significant impact related to the issue of Hazards.

Project-Specific Mitigation

Significant impacts due to fire protection services were not identified, and mitigation measures from the EOMSP Final EIR either do not apply or already are addressed under current state and federal law. As such, no new mitigation is required.

3.1.2.6 Conclusion

Based on the analysis provided above, implementation of the proposed Project would not result in any direct or cumulative impacts to vector hazards or fire safety. The Project site currently achieves acceptable response times from emergency services, and all existing laws and regulations either have been incorporated into TM5505 or would be incorporated into future designs for the site. Additionally, future implementing projects would be required to either implement the recommendations contained in the current FPP or would be required to submit a new site-specific FPP to demonstrate that significant fire hazard impacts would not occur. With respect to vector hazards, the Project would implement a number of design and maintenance BMPs that would minimize the amount of suitable vector breeding habitat on-site to ensure that human exposure to vectors would not substantially increase.

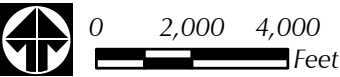
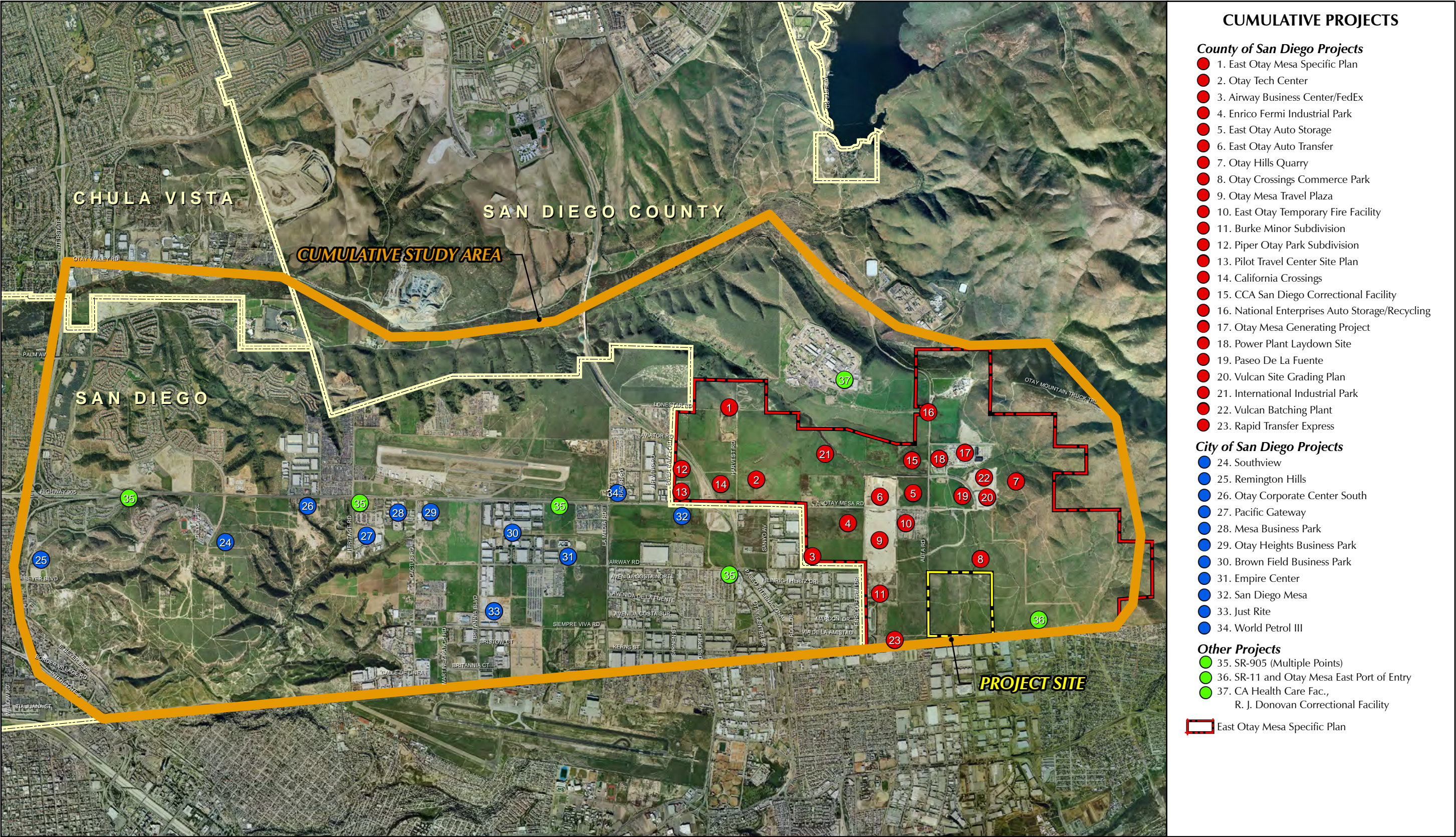


FIGURE 3.1.2-1
Cumulative Study Area - Hazards

3.1.3 Hydrology and Water Quality

The information in this section is based in part on three technical studies prepared by Kimley-Horn and Associates. The first report addresses hydrology and drainage and is titled “CEQA Preliminary Hydrology/Drainage Study, Otay Business Park” (May 4, 2010). The second study, titled “Storm Water Management Plan, Otay Business Park” (May 4, 2010) is required under the County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance (Ordinance No. 9424) and addresses water quality. The third report addresses hydromodification and is titled, “Preliminary Interim Hydromodification management Plan, Otay Business Park” (February 2010). Copies of these reports are provided as Appendices F1, F2, and F3 (respectively) to this SEIR.

3.1.3.1 Existing Conditions

Regional Hydrology

The San Diego Hydrologic Region, in which the proposed Project site is located, drains westerly toward the Pacific Ocean, covers three million acres, and is composed of eleven smaller watersheds. The Project site is located in the Tijuana Hydrologic Unit (911) which spans the U.S./Mexico border and covers an area of roughly 1,750 square miles, with approximately one-third of the watershed in California and two-thirds of the watershed in Baja California, Mexico. The Tijuana River, the Tijuana Estuary, and Cottonwood Creek are the major bodies of water in the watershed, with the Tijuana River discharging into the Tijuana Estuary and then the Pacific Ocean on the U.S. side of the border.

The Tijuana Hydrologic Unit is divided into a number of hydrologic areas and hydrologic subareas based on local drainage characteristics. The Project site is located in the Tijuana Valley Hydrologic Area and the Water Tanks hydrologic subarea. The beneficial uses of the Water Tanks hydrologic subarea, as documented in the Water Quality Control Plan for the San Diego Basin, are as follows:

Beneficial Uses for Inland Surface Waters: agricultural supply, industrial service supply (potential), contact water recreation (potential), non-contact water recreation, warm freshwater habitat, and wildlife habitat.

Beneficial Uses for Groundwater: municipal and domestic supply (potential), agricultural supply (potential), industrial service supply (potential).

Existing Drainage Patterns

The Project site is relatively flat and gently slopes to the south. The Project site has an existing natural drainage divide that bisects the site in a north/south direction. As depicted on Figure 3.1.3-1, *Existing Hydrology*, off-site flows originating from the northwest are conveyed through the site in a series of natural drainage swales in a natural flow condition to a discharge point at the southwestern portion of the site; off-site flows originating from the northeast are conveyed through the site via a series of natural drainage swales to a discharge point at the southeastern portion of the site. Runoff leaving the site flows into an existing natural swale in a southwesterly direction and passes into Mexico via six (6) box culverts measuring 7’ wide by 4’ high.

100-Year Floodplain and Flood Hazard Areas

The Project site and vicinity have been mapped for flood hazards by the Federal Emergency Management Agency (FEMA). Areas identified as high flood hazard areas (*i.e.*, areas within the 100-year floodplain) are notated on FEMA's Flood Insurance Rate Map (FIRM). As mapped by FEMA, no portion of the Project site is located within the 100-year floodplain nor is any portion of the site located within any identified Flood Hazard Areas.

Water Quality

The Tijuana Hydrologic Unit has the highest degree of water quality degradation in San Diego County and is classified as a Category I (impaired) watershed by the State Water Resources Control Board (SWRCB). Urban runoff, sewage spills, industrial discharge, trash, sedimentation, pesticides and eutrophication are the major contributors to the degradation of fresh and groundwater resources¹.

The San Diego Regional Water Quality Control Board (RWQCB) is a regional agency that is responsible for establishing ground and surface water quality objectives for the San Diego region. These objectives are documented in a document entitled, "Water Quality Control Plan for the San Diego Basin" (September 8, 1994 with amendments effective prior to April 25, 2007), also referred to as the "Basin Plan." The RWQCB also maintains a list of impaired water bodies pursuant to Section 303(d) of the Federal Clean Water Act, and includes on this list those water bodies that fail to meet federal water quality objectives. The Tijuana Hydrologic Unit contains five bodies of water listed as impaired waters by the RWQCB pursuant to Section 303(d) of the Clean Water Act, including: Barrett Lake, Morena Reservoir, Tijuana River, Tijuana River Estuary, and Pacific Ocean Shoreline at Tijuana Valley hydrologic area.

3.1.3.2 Analysis of Project Effects and Determination as to Significance

East Otay Mesa Specific Plan Final EIR

The Final EIR for the EOMSP concluded that implementation of the uses envisioned by the EOMSP, including the proposed Project, would result in significant but mitigable impacts to hydrology and water quality. Impacts identified by the EOMSP Final EIR include: potential flood impacts associated with the extension of Alta Road to the north; and the addition of impervious surfaces with future development in the EOMSP which could increase the amount of runoff, potentially increasing flood hazards to downstream properties.

Since the Final EIR for the EOMSP was certified in 1994, the County has adopted the Watershed Protection, Storm Water Management, and Discharge Control Ordinance (WPO). Compliance with the WPO requires preparation of a Storm Water Management Plan (SWMP) for the Project. The SWMP must identify potential construction and post-construction pollutants that may result from the Project and propose site design, source control, and treatment control Best Management Practices (BMPs) to address pollutants. In addition, the Project is subject to the new Municipal Stormwater Permit requirements regarding Low Impact Development (LID) that became effective on January 25, 2008. As stated in the Project's NOP, although it is not expected that the Project would cause additional or more severe impacts to hydrology or water quality than was addressed in the EOMSP Final EIR, these new studies must be completed and the resource issues addressed in this SEIR.

¹ Source: Project Clean Water, http://www.projectcleanwater.org/html/ws_tijuana.html

Compliance with County Water Quality StandardsGuidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if any of the following would occur as a result of a Project-related component:

- (1) The Project is a development project listed in County of San Diego Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended and does not comply with the standards set forth in the County Stormwater Manual, Regulatory Ordinances Section 67.813, as amended, or the Additional Requirements for Land Disturbance Activities set forth in Regulatory Ordinances, Section 67.811.*

Threshold 1 addresses the Project's compliance with the WPO. Compliance with the WPO ensures that proposed development activities would be consistent with applicable State and Federal laws that protect water quality. An impact of a project would be considered significant if the design conflicts with one or more of the applicable standards presented in the County Stormwater Standards Manual or the Additional Requirements for Land Disturbance Activities. The additional requirements include preparation of a Stormwater Management Plan that specifies the way the BMPs required by the WPO will be implemented, and provides minimum BMPs, for the land disturbing activity.

Analysis

The Project proposes 59 industrial lots on approximately 161.6 acres. Each lot has the potential to generate polluted runoff. Pollutants of concern generally associated with industrial uses include: sediment discharge due to pre- and post-construction areas left bare; heavy metals from vehicles, oil and grease from parking areas; trash and debris deposited in drain inlets; oxygen demanding substances and organic compounds. All of these pollutants could potentially affect the quality of water runoff from the Project site.

The Project Major SWMP identifies control measures related to development of the Project, based on procedures identified in the County WPO, Stormwater Manual and Standard Urban Stormwater Mitigation Plan (SUSMP), as well as the related National Pollution Discharge Elimination System (NPDES) Municipal Stormwater Permit. The Project SWMP analysis is summarized below.

- Construction BMPs

Section 67.806.b of the WPO requires all applications for a permit or approval associated with a Land Disturbance Activity to be accompanied by a SWMP. The purpose of the SWMP is to describe how the project will minimize the short and long-term impacts on receiving water quality, and to demonstrate compliance with the requirements set forth in the WPO. The proposed Project qualifies as a priority development project because it involves the development of an industrial operation greater than one acre in size, as specified in Section 67.802.w of the WPO. Projects that meet the criteria for a priority development project are required to prepare a Major SWMP.

The Project's SWMP has been prepared in accordance with the requirements for a Major SWMP, and identifies BMPs to be implemented during grading and construction in compliance with the State of California's NPDES Permit. Issued on January 24, 2007 by the RWQCB, the NPDES Permit requires the development and implementation of storm water regulations addressing storm water

pollution from land development and construction activities associated with private and public development projects. Project design measures in the form of BMPs that address water quality impacts from construction activities have been incorporated into the project, as detailed in the Project SWMP, included as Appendix F2 to this SEIR. As documented in this report, the Project would comply with the Statewide General NPDES Construction Permit by first filing a Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB), by implementing a Storm Water Pollution Prevention Plan (SWPPP) for site construction, and by implementing a monitoring program that includes a maintenance schedule with inspection of the construction BMPs before anticipated storm events and after actual storm events. Also, a qualified person would be assigned responsibility to ensure full compliance with the permit and to implement the elements of the SWPPP. Compliance with the General NPDES Permit and the SWMP would be required as a standard condition of Project approval.

In addition, the County's SUSMP addresses project design requirements, which are intended to address the WPO and the County's Jurisdictional Urban Runoff Management Plan (JURMP) requirements. The BMPs and the design criteria set forth in the SUSMP are based on existing well-established stormwater management technologies and practices. The Major SWMP prepared for the proposed Project incorporates the construction stormwater technologies recommended by the SUSMP, and was determined by the County DPW to be consistent with the design requirements specified therein.

Section 67.811 of the WPO establishes additional requirements for land disturbance activities and provides a list of BMPs to be installed, implemented, and maintained where applicable for a given project. The Project's Major SWMP incorporates 15 distinct BMPs to be incorporated during construction activities, and these BMPs are consistent with the list provided in Section 67.811 of the WPO. In addition, and as documented in the SWMP, the proposed Project site is not located within 200 feet of waters named on the Clean Water Act (CWA) Section 303(d) list of Water Quality Limited Segments as impaired for sedimentation and/or turbidity. As such, the Project would not be required to implement Advanced Treatment BMPs. Therefore, the Project's SWMP is consistent with the requirements set forth in Section 67.811 of the WPO.

Finally, as part of the current NPDES Permit, the SWRCB requires that by March 2008, lead agencies must require Low Impact Development (LID) BMPs, medium/high treatment control BMP effectiveness, and a Hydromodification Management Plan. LID is a required approach to reduce stormwater runoff rates and durations. The technique emphasizes mimicking natural hydrologic conditions through promotion of infiltration. The proposed Project has complied with this requirement through the preparation of a Hydromodification Management Plan (SEIR Appendix F3). For purposes of construction and post-construction activities, the Hydromodification Management Plan identifies a requirement to construct two detention basins on-site to reduce runoff peaks and durations to comply with flow control criteria. In addition, the Project would be required to direct runoff flows from streets to grass swales, which would enhance water quality by trapping pollutants, promoting infiltration, and reducing the flow velocity of stormwater runoff. Construction of these design features would occur concurrent with mass grading and site improvements. Therefore, the Project would be consistent with the NPDES Permit construction-level requirements to incorporate LID BMPs, to demonstrate medium/high treatment control effectiveness, and to enforce the LID requirements through adherence to a Project-specific Hydromodification Plan.

Therefore, because the proposed Project would be in compliance with the County's WPO and JURMP requirements, and because the Project would be consistent with the NPDES requirements for LID during construction activities, a significant construction-related impact to water quality would not occur with implementation of the proposed Project.

- Treatment Control BMPs

The Project also would implement treatment control BMPs to treat runoff and maximize pollutant removal during long-term operation of the proposed Project. Treatment control BMPs are intended to reduce the amount of pollutants in storm water runoff leaving the Project site. As identified in the Project SWMP (see Appendix F2), catch basin filter inserts, extended/dry detention basins with grass lining, vegetated swales, and CDS Units would be provided on-site as treatment control BMPs. Catch basin filter inserts would also be provided at inlets to the proposed off-site storm drain system to treat runoff generated from the off-site areas (including the proposed extensions of Alta Road, Airway Road, and Siempre Viva Road). Detention basins in combination with catch basin filter inserts and vegetated swales have one of the highest removal efficiencies for the pollutants anticipated to be generated by the Project, and have been incorporated into the design of the Project to minimize the amount of polluted runoff to the maximum extent practicable. Catch basin inserts have a removal effectiveness of medium for trash, petroleum hydrocarbons (oil and grease) and low efficiency for sediment, nutrients, metals, bacteria, and organics. The proposed detention basins are proposed on-site, at the southwestern and southeastern corners of the site, respectively. Detention basins are identified as having a low removal effectiveness for nutrients only; medium effectiveness for sediment, metals, bacteria, petroleum products (oil and grease), and organics; and a high effectiveness for removing trash and debris. Vegetated swales would be utilized to capture roadway runoff from the public right-of-way via under sidewalk drains and will treat runoff within the private landscape setbacks. Vegetated swales have a medium effectiveness in the treatment of sediment, metals, oil and grease, and organics, but have a low effectiveness for treating nutrients, bacteria, and trash and debris. CDS Units are designed to collect and contain sediment, debris, petroleum hydrocarbons (oil and greases) and bacteria. They perform as effective filtering devices at low flows but will not impede the system's maximum design flow. The removal effectiveness is medium for sediment and low for nutrients, metals, bacteria, and organics. The Project SWMP establishes a long-term maintenance program (including a funding mechanism) for the proposed treatment control BMPs. Compliance with the maintenance program would ensure that treatment control BMPs operate at maximum effectiveness during long-term operation of the Project to minimize the amount of polluted runoff leaving the site and the off-site improvement area. With implementation of the treatment control BMPs identified in the Project SWMP, the Project's Treatment Control BMPs would be consistent with the WPO, the standards set forth in the County Stormwater Manual, and the Additional Requirements for Land Disturbance Activities. Therefore, significant impacts to water quality and the degradation of beneficial uses would not occur.

- Source Control BMPs

Source control BMPs are intended to minimize potential sources of polluted runoff. Because the Project is at the mapping stage and specific uses have not been identified for any of the 59 proposed industrial/commercial lots on-site, the SWMP does not identify any source-control BMPs to be used on-site, other than measures for the proposed circulation system (*i.e.*, storm drain system stenciling and signage) and common landscaped/revegetated areas (*i.e.*, the use of efficient irrigation systems and landscape design). It is intended that source control BMPs for each individual lot would be identified in a lot-specific SWMP, once specific development plans and uses have been identified for

each respective lot. Implementation of the source control BMPs included in the lot-specific water quality management plans would ensure that proposed land uses would not violate any waste discharge standards or degrade beneficial uses for receiving surface or groundwater resources. Preparation of SWMPs in association with future development proposals for individual lots is required pursuant to the County's WPO. During review of future development proposals, including future Site Plans, the County DPW would review the subsequent SWMPs to ensure that appropriate BMPs are incorporated into each lot so as to preclude significant water quality impacts and to verify compliance with the County's Stormwater Manual, WPO, and any applicable Additional Requirements for Land Disturbance Activities. Therefore, because the development of future lots would require the preparation and approval of individual SWMPs that demonstrate compliance with these requirements, impacts to water quality associated with long-term operation of individual lots would be less than significant.

Water Pollution

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if any of the following would occur as a result of a Project-related component:

- (2) *The Project will contribute pollution in excess of that allowed by applicable State or local water quality objectives or will cause or contribute to the degradation of beneficial uses.*

Threshold 2 was selected pursuant to State and local water quality objectives and beneficial uses. Water quality objectives are established for the reasonable protection of beneficial use and are derived from the RWQCB Basin Plans. In this particular guideline, the receiving water does not have to be officially recognized as a 303(d) impaired water body. An impact to water quality will be considered significant if a project will exceed a water quality objective or will degrade a beneficial use as defined in the respective basin plan.

Analysis

Water quality objectives for surface and subsurface waters are described in Chapter 3 of the Water Quality Control Plan for the San Diego Basin (9) (September 8, 1994 with amendments effective prior to April 25, 2007). The Basin Plan includes objectives applicable to general antidegradation; inland surface waters, enclosed bays and estuaries, coastal lagoons and ground waters; and ocean waters. The general antidegradation objective generally encourages that, regardless of existing water quality, new sources of runoff should not degrade downstream water quality. The remaining objectives provide specific guidance to acceptable levels of pollutant concentrations in the various types of surface and subsurface waters that occur throughout the San Diego Basin, with specific objectives tailored to the identified beneficial uses.

As noted above, a Project-specific SWMP has been prepared to identify BMPs to be incorporated into the proposed development so as to preclude significant water quality effects on receiving waters. The SWMP identifies appropriate pollution control measures based on the designated beneficial uses within the Tijuana Hydrologic Unit. As identified in the SWMP, pollutants of concern associated with the proposed Project include sediment, heavy metals, organic compounds, trash and debris, oxygen demanding substances, and oil and grease. Based on the identified pollutants of concern, a series of BMPs were selected and incorporated into the various Project plans and/or will be required as conditions of approval for future implementing actions. As identified above under the discussion

of Treatment Control BMPs, the Project has incorporated BMPs to address all of the identified pollutants of concern.

In addition, future implementing projects will be required to prepare subsequent SWMPs as required by the County's WPO. These future SWMPs will likewise be required to implement Treatment BMPs to address any anticipated pollutants of concern that may be associated with any specific uses identified for individual development lots.

Accordingly, with adherence to the Project's SWMP and future SWMPs to be prepared in association with each individual development lot, the Project would not contribute pollution in excess of that allowed by applicable State or local water quality objectives, and the Project would not cause or contribute to the degradation of beneficial uses. Therefore, impacts of Project development would have less than significant impacts to water quality.

Compliance with Clean Water Standards

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if any of the following would occur as a result of a Project-related component:

- (3) *The Project does not conform to applicable Federal, State or local "Clean Water" statutes or regulations including but not limited to the Federal Water Pollution Control Act, California Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.*

Threshold 3 recognizes the three "Clean Water" regulations (one Federal, one State and one local) that establish water quality standards and waste discharge requirements to minimize impacts to water quality. Non-conformance with any of these regulations would degrade water quality and violate Federal, State and local laws. The impact would be considered significant.

Analysis

The three "Clean Water" regulations establish a set of laws intended to ensure the protection of beneficial uses of water resources and to generally prevent the degradation of water quality within receiving waters. The federal Clean Water Act (CWA) strives to restore and maintain the chemical, physical, and biological integrity of the nation's water. The act sets up a system of water quality standards, discharge limitations, and permits. The fundamental purpose of this law is the protection of designated beneficial uses of water resources. Sections 106, 205(g), 205(j), 208, 303, and 305 of the Clean Water Act establish requirements for state water quality planning, management, and implementation with regard to surface waters. The Clean Water Act requires that states adopt water quality standards to protect public health, enhance the quality of water, and serve the purposes of the Clean Water Act. The Clean Water Act was amended in 1987 to include urban and stormwater runoff, which required many cities to obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater conveyance system discharges. Section 402(p) of the Clean Water Act prohibits discharges of pollutants contained in stormwater runoff, except in compliance with an NPDES permit.

The Porter-Cologne Water Quality Control Act establishes the responsibilities and authorities of the nine RWQCBs and the SWRCB. The Porter-Cologne Act names these Boards and designates them

as "... the principal State agencies with primary responsibility for the coordination and control of water quality" (Section 13001). Each Regional Board is directed to "...formulate and adopt water quality control plans for all areas within the region." A water quality control plan for the waters of an area is defined as having three components: 1) beneficial uses which are to be protected, 2) water quality objectives which protect those uses, and 3) an implementation plan which accomplishes those objectives (Section 13050). Therefore, the Porter-Cologne Act effectively serves as the statewide implementation mechanism for achieving the requirements of the federal CWA.

The County's WPO is intended, in part, to ensure that development projects throughout the County achieve the water quality objectives established by the SWRCB and to ensure compliance with the applicable NPDES Permit. The WPO contains discharge prohibitions, and requirements that vary depending on type of land use activity and location in the County. A Stormwater Standards Manual (SSM) is included as Appendix A of the WPO and sets out in more detail, by project category, what Dischargers must do to comply with the WPO and to receive permits for projects and activities that are subject to the WPO. The WPO and SSM define the requirements that are legally enforceable by the County in the unincorporated area of San Diego County. In addition, the County has adopted its Standard SUSMP for Land Development and Public Improvement Projects. The SUSMP is focused on project design requirements and related post-construction requirements for land development and capital improvement projects, and addresses WPO requirements for these project types.

In effect, the County's WPO serves to implement the Porter-Cologne Act, which in turn was adopted to ensure statewide compliance with the CWA. Thus, compliance with the Porter-Cologne Act ensures compliance with the CWA, while compliance with the County's WPO helps demonstrate consistency with the RWQCB and SWRCB policies, objectives, and requirements.

As noted above under the discussions of Compliance with County Water Standards and Water Pollution (see Threshold 1), the proposed Project would comply with the requirements set forth in the WPO. In addition, the Project would comply with the Statewide General NPDES Construction Permit, including the recently added construction-level requirements to incorporate LID BMPs, to demonstrate medium/high treatment control effectiveness, and to enforce the LID requirements through adherence to a Project-specific Hydromodification Plan. The Project also would comply with applicable provisions from the Water Quality Control Plan for the San Diego Basin (as discussed above under Threshold 2). Future implementing projects, including future site plans for the development of individual lots, would be required by the WPO to prepare individual SWMPs to demonstrate compliance with the federal CWA as well as the requirements of the SWRCB and the WPO. Therefore, the proposed Project would conform to applicable Federal, State, and local "Clean Water" statutes or regulations, and a significant impact would not occur.

Impaired Waters

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if the following would occur as a result of a Project-related component:

- (4) The Project would drain to a tributary of an impaired water body listed on the Clean Water Act Section 303(d) list, and will contribute substantial additional pollutant(s) for which the receiving water body is already impaired.*

Threshold 4 was selected in order to assess the potential of the proposed Project to degrade polluted water bodies. Section 303(d) of the Federal Clean Water Act (CWA, 33 USC 1250, et seq., at 1313(d)), requires states to identify waters that are already polluted (i.e. “impaired” water bodies). Impacts to impaired water bodies as defined by the CWA would result in adverse water quality conditions and mitigation would be required.

Analysis

Section 303(d) of the federal Clean Water Act (CWA, 33 USC 1250, et seq., at 1313(d)), requires States to identify waters that do not meet water quality standards (“impaired” water bodies). According to the California 303(d) list published by the San Diego Regional Water Quality Control Board in 2006, three bodies of water downstream of the Project site are listed as impaired: Tijuana River (approximately 7.2 miles west of the Project site), Tijuana River Estuary (approximately 11.5 miles west of the Project site), and Pacific Ocean Shoreline at the mouth of the Tijuana River (approximately 12.2 miles west of the Project site). The Tijuana River is identified as being impaired due to eutrophic conditions, indicator bacteria, low dissolved oxygen, pesticides, solids, synthetic organics, trace elements, and trash. The Tijuana River Estuary is identified as being impaired due to eutrophic conditions, indicator bacteria, lead, low dissolved oxygen, nickel, pesticides, thallium, trash, and turbidity. The Pacific Ocean Shoreline is impaired by bacteria only.

According to the Project-specific SWMP, industrial developments are generally associated with the following pollutant types: sediments, heavy metals, organic compounds, trash and debris, oxygen demanding substances, and oil and grease. Industrial developments, such as the proposed Project, are not typically associated with pollutants such as bacteria and pesticides; therefore, the proposed Project would not substantially contribute these pollutants to the three downstream impaired water bodies. The Pacific Ocean Shoreline is impaired only by bacteria; therefore, runoff from the proposed Project would not contribute substantial pollutants of concern to this impaired water body, and impacts would be less than significant.

The proposed Project has the potential to contribute to existing water quality impairments at the Tijuana River and Tijuana River Estuary because Project runoff could contribute to eutrophic conditions, low dissolved oxygen, solids, synthetic organics, trace elements, and trash. As documented in the Project’s SWMP, BMPs have been proposed to ensure treatment of Project runoff to remove pollutants of concern prior to discharge of runoff from the site. Three types of BMPs are proposed: detention basins, vegetated swales, and catch basin inserts. Table 3.1.3-1, *Project BMP Treatment Effectiveness*, provides a summary of the treatment effectiveness of the Project’s BMPs with respect to the pollutants of concern within the Tijuana River and Tijuana River Estuary. As shown, the Project would implement BMPs that would treat all Project-related runoff to remove the pollutants of concern to varying degrees. The BMPs, combined, would assure that the Project does not contribute substantial additional pollutants to these impaired water bodies. As such, the proposed Project’s impact to impaired waters is evaluated as less than significant.

In addition, future implementing projects, such as individual site plans, would be required by the WPO to prepare and implement a SWMP to address any operational pollutants of concern that may be generated by future end users. Similar to the proposed Project, these future implementing projects would be required to identify all pollutants of concern and implement BMPs to ensure that those pollutants are adequately treated prior to discharge from the site. Because the preparation and implementation of a site-specific SWMP would be required pursuant to the WPO, future

implementing projects would not contribute substantial additional pollutants to downstream impaired water bodies, and impacts would be less than significant.

Table 3.1.3-1 PROJECT BMP TREATMENT EFFECTIVENESS

PROJECT BMPs	POLLUTANT CATEGORIES						
	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease
Detention Basins	Medium	Low	Medium	Medium	High	Medium	Medium
Vegetated Swales	Medium	Low	Medium	Medium	Low	Low	Medium
Catch Basin Inserts	Low	Low	Low	Low	Medium	Low	Medium
CDS Units	Medium	Low	Low	Low	Low	Low	Low

Drinking Water Reservoirs

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if the following would occur as a result of a Project-related component:

- (5) *The Project would drain to a tributary of a drinking water reservoir and will contribute substantially more pollutant(s) than would normally runoff from the Project site under natural conditions.*

Threshold 5 evaluates the Project's potential to adversely affect local drinking water by increasing pollution above what would normally occur in runoff under natural conditions.

Analysis

Municipal and domestic water supply (i.e., drinking water) is not an identified beneficial use of surface waters within the Project's hydrologic unit. The Project site does not drain into any tributaries of drinking water reservoirs, as there are no drinking water reservoirs within the Tijuana Hydrologic Unit between the Project site and the Pacific Ocean. Accordingly, surface runoff from the site has no potential to contribute polluted runoff to a tributary of a drinking water reservoir, and significant impacts to drinking water reservoirs would not occur.

Erosion

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if the following would occur as a result of a Project-related component:

- (6) *The Project would substantially alter the drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.*

Threshold 6 was selected for evaluation in order to assess the potential of the proposed Project to impact on- off-site drainage patterns or directions. Alteration of drainage patterns and modifications to drainage courses could disturb development (*i.e.*, housing foundations, roads, trails and utilities) and natural features, (*i.e.*, watercourses) thereby creating potentially significant impacts to natural and developed conditions.

Analysis

Under existing conditions, off-site flows originating from the northwest are conveyed through the site in a series of natural drainage swales in a natural flow condition to a discharge point at the southwestern portion of the site; flows originating from the northeast are conveyed through the site via a series of natural drainage swales to a discharge point at the southeastern portion of the site.

The proposed Project would capture off-site flows from the north in several locations. Off-site flows originating from the northwest would be conveyed in an underground drainage system within Alta Road and would be discharged south of the Project site, in a location consistent with the existing drainage path. Rip-rap energy dissipaters would be provided at the off-site discharge point to reduce the velocity of on-site runoff discharge and minimize the potential for erosion. Off-site flows originating from the northeast would be conveyed through the site via a vegetated drainage channel, as depicted on Figure 3.1.3-2 and Figure 3.1.3-3, *Proposed Conditions Hydrology Map*. Runoff velocities within the vegetated drainage channel would not exceed six (6) cubic feet per second (cfs) in most locations. In locations where runoff velocities would not exceed six (6) cfs, there is little potential for erosion. However, there are several locations within the proposed vegetated drainage channel where runoff velocities are expected to exceed six (6) cfs, which could result in erosion. In all locations within the vegetated drainage channel where runoff velocities are anticipated to exceed six (6) cfs, the channel would be lined with rip-rap energy dissipaters to minimize the potential for erosion. The proposed drainage channel also has been designed to avoid the diversion of flows, and the route of the drainage channel and the location of its discharge point would be consistent with the path of existing flows. Rip-rap energy dissipaters would be provided at the drainage channel discharge point to reduce the velocity of runoff discharge and minimize the potential for erosion.

Grading and construction of the Project site would result in alterations to the site's internal drainage patterns; however, the proposed Project has been designed to avoid the diversion of flows and would preserve the existing, natural points of discharge. As described in SEIR Section 1.2.1.1, *Tentative Map (TM5505) – Drainage Plan*, an existing drainage course on the western portion of the Project site would be re-routed and captured by a system of curb inlets and desilting basins. These BMPs would reduce the amount of sedimentation within on-site runoff flows before transferring the flows to a series of underground drainage systems, and ultimately, the West Detention Basin. The West Detention Basin would temporarily detain runoff flows on-site, thereby reducing sedimentation, and would then discharge runoff to the south of the site in a manner that closely resembles existing flow conditions to minimize erosion. Rip-rap energy dissipaters would be provided at the discharge point of the West Detention Basin to reduce the velocity of runoff discharge, which would further minimize the potential for erosion. The existing drainage course on the eastern portion of the site would be realigned and preserved as an open, soft-bottomed channel. The soft-bottomed channel would route runoff flows to the East Detention Basin, located at the southeast corner of the site. The East Detention Basin would temporarily detain stormwater drainage on-site, which would reduce the amount of sedimentation within runoff flows. Like the West Detention Basin, the East Detention Basin would discharge runoff to the south of the site in a manner that closely resembles the flows

that occur under existing conditions to minimize erosion. Rip-rap energy dissipaters would be provided at the detention basin discharge point to reduce the velocity of runoff discharge and further minimize the potential for erosion.

Although the Project would re-route on-site flows through an underground drainage system, the Project would not modify the overall drainage pattern of the site or the adjacent tributary areas, as runoff flows would continue to leave the property at locations consistent with the existing points of discharge. In addition, rip-rap energy dissipaters would be provided to further reduce the potential for erosion. Thus implementation of the proposed Project would not result in substantial increased erosion or siltation on- or off-site, and a significant impact would not occur.

Flood Hazards

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if any of the following would occur as a result of a Project-related component:

- (7) *The Project will increase water surface elevation in a watercourse within a watershed equal or greater than 1 square mile, by 1 foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River and Otay River, 1/5 of a foot or more in height.*
- (8) *The Project will result in increased velocities and peak flow rates exiting the Project site that would cause flooding downstream or exceed the stormwater drainage system capacity serving the site.*

Threshold 7 was selected to address CEQA Guidelines, Appendix G, Section VIII, which requires an analysis of the alteration of drainage patterns from landform alteration as well as increased in the rate or amount of runoff when evaluating impacts to hydrology and water quality.

Threshold 8 is evaluated to ensure that adequate storm water facilities would be available to serve the proposed Project. The County has a Design and Procedure Manual with requirements to ensure that storm drains would be of sufficient size and placed in the proper locations to accommodate storm water flows. Non-compliance with County requirements could result in adverse storm water conditions.

Analysis

Implementation of the Project would ultimately result in the construction of additional impervious surfaces, including pavement and structures. The addition of such surfaces has the potential to increase both the total amount of runoff within the Project site and the velocity of runoff discharged from the site, which could result in flooding on- or off-site.

As part of the Drainage Report prepared for the Project (see Appendix F1 to this SEIR), the quantity of stormwater runoff from the Project's developed condition associated with a 100-year design storm event was calculated. In order to determine the potential for an increase in runoff from the Project site, the study compared runoff quantities from the site in its current, undeveloped condition to the runoff quantities associated with ultimate proposed development. As depicted in Table 3.1.3-2, *Pre- and Post-Development 100-Year Storm Flows*, development of the Project would increase peak

runoff flows in both of the site's two major drainage basins. Ultimate development associated with the Project would increase runoff by approximately 601-percent (645.7cfs), which would represent a substantial increase in runoff volumes.

Table 3.1.3-2 PRE- AND POST-DEVELOPMENT 100-YEAR STORM FLOWS

BASIN	PRE-DEVELOPMENT (CFS) ¹	POST-DEVELOPMENT (CFS)	PEAK DETENTION VOLUME (AC-FT) ²	POST DEVELOPMENT W/ DETENTION BASIN (CFS)
West	56.8	350.0	19.8	1.4
East	50.6	403.1	15.4	1.5
Net Total	107.4	753.1	35.2	2.9

¹cfs = cubic feet per second.

²ac-ft = acre-feet.

Sources: Kimley Horn and Associates (May 4, 2010).

As described in EIR Section 1.2.1.1, *Tentative Map (TM5505) – Drainage Plan*, two detention basins have been incorporated into the design of the Project in order to attenuate increase to runoff volumes in the two drainage basins on-site. The detention basins were designed to meet the County of San Diego Hydromodification requirements. Each detention basin would be adequately sized to capture all runoff from the eastern and western portions of the site, respectively, and would incorporate low flow, intermediate orifices and weirs to control the rate and amount of outflow discharged from the site, as well as emergency spillways to ensure that 100-year storm peak flows are routed completely to the detention basins. The proposed West Detention Basin would have a footprint of approximately 4.85 acres and would have a top embankment of nine (9) feet above the bottom of the basin, which would provide a freeboard of 2.9 feet above the maximum 100-year stage (*i.e.*, 6.1 feet). As depicted in Table 3.1.3-2, the West Detention Basin would reduce peak flows during a 100-year storm event below the existing conditions flow rate. The proposed East Detention Basin would have a footprint of approximately 1.76-acres and would have a top embankment of 17.8 feet above the bottom of the basin, which would provide a freeboard of 2.0 feet above the maximum 100-year stage (*i.e.*, 15.8 feet). As depicted in Table 3.1.3-2, the East Detention Basin would reduce peak flows during a 100-year storm event to below the existing conditions flow rate. Accordingly, implementation of the Project would not increase the total rate or amount of storm flows leaving the site. As such, the proposed Project would not substantially increase flood hazards on- or off-site and impacts would be less than significant.

100-Year Floodplains and Special Flood Hazard Area Safety

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if any of the following would occur as a result of a Project-related component:

- (9) *The Project will result in placing housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a FIRM, a County Flood Plain Map or County Alluvial Fan Map, which would subsequently endanger health, safety and property due to flooding.*

Threshold 9 was selected to address question g) and i) in the CEQA Guidelines, Appendix G, VIII, the County RPO and the Flood Damage Prevention Ordinance which prohibit the placement of housing or habitable structures in a 100-year floodplain area or other special flood hazard area, as shown on a FIRM, or other flood hazard delineation map which would subsequently endanger health, safety and property due to flooding. Flooding includes mudflows and debris flows.

Analysis

The Project site is not located within a 100-year floodplain, is not located in any special flood hazard areas, and is not located within any floodways, according to mapping information available from the San Diego Geographic Information Source (SanGIS). Because the Project site is not located within any 100-year floodplains, floodways, or any special flood hazard areas, no structures would be placed in a location where they would impede or redirect flood flows in a manner that could endanger health, safety, or property due to flooding; therefore, a significant impact would not occur.

Flood Hazard Areas and Floodway Alteration

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on hydrology and water quality if any of the following would occur as a result of a Project-related component:

(10) The Project will place structures within a 100-year flood hazard area or alter the floodway in a manner that would redirect or impede flows resulting in any of the following:

a. Alter the Lines of Inundation resulting in the placement of other housing in a 100-year flood hazard;

OR

b. Increase water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile by 1 foot or more in height and in the case of the San Luis Rey River, San Dieguito River, Sweetwater River, and Otay River 1/5 of a foot or more in height.

Threshold 10 was selected to assess the potential of the proposed Project to impair or alter floodways. This significance guideline has been developed to address question h) in the CEQA Guidelines, Appendix G, VIII, the County RPO and the Flood Damage Prevention Ordinance which prohibit activities or placement of structures in a 100-year floodplain area or other special flood hazard area, as shown on a FIRM, or other flood hazard delineation map which would subsequently endanger health, safety and property due to an increase in flood levels during the occurrence of a base flood discharge.

Analysis

The Project site is not located within a portion of the County that is a tributary to the San Luis Rey River, San Dieguito River, Sweetwater River, or Otay River, and would therefore have no impact on surface elevations associated with these tributaries. As described under the analysis of Thresholds 7 and 8, detention basins have been incorporated into the proposed development and would reduce flows from the site as compared to existing conditions, thereby demonstrating that Project implementation would not increase flood inundation hazards for downstream properties. Additionally, the proposed Project would not divert any flows and would therefore have no adverse

effects on downstream lines of inundation. Therefore, a significant impact associated with downstream 100-year flood hazards would not occur with implementation of the proposed Project.

3.1.3.3 Cumulative Impact Analysis

Cumulative Impacts Identified by the EOMSP Final EIR

The EOMSP Final EIR (1994) did not identify or disclose any cumulatively significant impacts to hydrology and water quality.

Project-Specific Cumulative Impact Analysis

A study area was defined in order to assess the cumulative effect of the Project's impacts to hydrology and water quality. In defining the study area, the primary consideration was local topography, as it directly influences the drainage characteristics of an area. The resulting study area encompassed approximately 1,020 acres of the Otay Mesa community, which includes all lands located upstream that would flow through the proposed Project site with implementation of the proposed Project. Downstream lands are not included within the cumulative study area because runoff from the proposed Project site would discharge immediately into several existing manmade drainage channels located immediately south of the Project site and drainage flows would be conveyed by a series of culverts and drainage channels before ultimately combining with the Tijuana River.. Figure 3.1.3-4, *Cumulative Study Area – Hydrology and Water Quality*, depicts the cumulative study area.

Research was conducted which resulted in a list of 11 past, present, and reasonably foreseeable projects within the study area, and to determine the potential for cumulative water quality impacts. EIR Section 1.7 provides a summary of all the projects that were considered along with their identified impacts to each of the environmental issue areas addressed by this EIR. As identified in EIR Table 1-7, *Cumulative Projects CEQA Summary*, none of the projects within the cumulative study area were identified as having significant impacts to hydrology and water quality, although all projects in the study area have the potential to contribute to cumulative impacts to hydrology and/or water quality. These projects would be required to implement construction and long-term BMPs to provide water quality treatment of runoff discharged from the respective project sites, and attenuate any changes to the hydrologic response of the project site, as required through compliance with WPO. Upon incorporation of required WPO BMPs, all projects in the hydrology and water quality cumulative study area for the Otay Business Park project would reduce their potential adverse impacts to water quality to below a level of significance.

As noted throughout this Section, the proposed Project would incorporate a number of design features to preclude significant hydrology and water quality impacts. The Project has incorporated BMPs for construction and long-term operation to ensure that the Project does not conflict with the WPO. Because the Project would adhere to all applicable provisions of the WPO, there is no potential for cumulatively significant impacts due to a conflict with the WPO.

With respect to water pollution, the proposed Project would incorporate a number of Treatment Control BMPs to ensure that runoff from the proposed Project does not contribute pollution in excess of water quality objectives or contribute to the degradation of beneficial uses. As described previously in this section, the Treatment Control BMPs will address all pollutants of concern for industrial developments, and will ensure that the Project does not contribute to existing impairments of the Tijuana River watershed. Since all upstream waters would flow through the Project's

proposed Treatment Control BMPs, and because any new upstream developments would similarly be required by the County's WPO to incorporate Treatment Control BMPs, the Project would not contribute to a significant cumulative water quality impact within the Tijuana Watershed.

In addition, and as described above, the proposed Project would not conflict with any Federal, State, or local "Clean Water" statutes or regulations. As discussed under Threshold 1, the proposed Project would comply with the requirements set forth in the WPO. In addition, the Project would comply with the Statewide General NPDES Construction Permit, including the recently added construction-level requirements to incorporate LID BMPs, to demonstrate medium/high treatment control effectiveness, and to enforce the LID requirements through adherence to a Project-specific Hydromodification Plan. The Project also would comply with applicable provisions from the Water Quality Control Plan for the San Diego Basin (as discussed above under Threshold 2). Future implementing projects, including future site plans for the development of individual lots, would be required by the WPO to prepare individual SWMPs to demonstrate compliance with the federal CWA as well as the requirements of the SWRCB and the WPO. Compliance with applicable Federal, State, and local "Clean Water" statutes and regulations, which were implemented to address water quality concerns on a regional scale, would ensure that cumulative impacts to water quality do not result from Project implementation.

As noted previously under the discussion of Threshold 4, the Project would not contribute substantial pollutants to the Tijuana River, including those pollutants for which the Tijuana River tributaries are identified as impaired by the CWA Section 303(d) list. Treatment Control BMPs have been incorporated into the proposed Project, and include detention basins, vegetated swales, and catch basin inserts. These BMPs were specifically selected to address the pollutants of concern that are expected from the development of the project site. Because the Project site intercepts runoff flows from upstream properties under existing conditions, Treatment Control BMPs proposed on-site and within improved portions of off-site roadways also would provide a secondary benefit of treating captured runoff flows generated upstream.. With the incorporation of these BMP devices, Project runoff along with runoff from upstream properties would not substantially contribute to the existing water quality problems identified in the Tijuana River and Tijuana River Estuary. Therefore, cumulatively significant impacts to existing impaired waters would not occur with implementation of the Project.

As noted under the discussion of Threshold 5, the Project site does not drain into any tributaries of drinking water reservoirs, as there are no drinking water reservoirs within the Tijuana Hydrologic Unit between the Project site and the Pacific Ocean. Therefore, there is no potential for cumulatively significant impacts to drinking water reservoirs.

The proposed Project will relocate an existing drainage course through the center of the site to the eastern boundary of the site but will maintain the same basic discharge points that occur under existing conditions, and would therefore not substantially alter the drainage pattern of the site or area. Since the Project would not contribute to any such alterations, there is no potential for cumulatively significant impacts associated with erosion.

Proposed detention basins would ensure that peak flows from the site are not increased with Project implementation, thereby precluding any potential flood hazard effects downstream. Because the Project would result in a reduction of peak discharge rates for the site, there is no potential for cumulatively significant impacts associated with flood hazards to downstream properties. Similarly,

the Project site is not located within a floodplain, floodway, or other special hazard area, and would therefore not contribute to any safety hazards associated with such features.

Finally, the proposed Project would reduce peak flows from the site and would not divert any flows, and would therefore have no potential to cumulatively contribute to changes to existing flood patterns which could result in the placement of housing within the 100-year flood hazard area.

3.1.3.4 Significance of Impacts Prior to Mitigation

As documented in the preceding sections, implementation of the proposed Project would not result in any significant impacts to hydrology or water quality.

3.1.3.5 Mitigation

Mitigation Measures from the EOMSP Final EIR

Mitigation measures were identified by the EOMSP Final EIR (1994) to address impacts to hydrology and water quality resulting from construction and long-term operation of the uses identified by the EOMSP, and include the following:

- 6A. *As individual projects are proposed, they shall be required to construct on-site detention facilities, storm drain facilities, energy dissipaters, and erosion control devices to reduce the flow of runoff.*
- 6B. *The County and the property owners shall comply with Best Management Practices of the Clean Water Act.*
- 6C. *Individual projects shall incorporate proper construction techniques to prevent erosion and off-site transport of sediment.*
- 6D. *Bridge construction across O'Neal Canyon shall be completed outside the 100-year floodplain.*

Mitigation Measure 6A would be implemented with the current TM5505, which proposes to install appropriate on-site detention facilities, storm drain facilities, energy dissipaters, and other erosion control devices as necessary to reduce the flow of runoff. Mitigation Measure 6B also would be implemented as part of the proposed Project because appropriate BMP features have been included in the design (as described above in Section 3.1.3.2). Additionally, future implementing projects would be required to implement additional BMPs if necessary to demonstrate compliance with the County's WPO. Similarly, Mitigation Measure 6C would be implemented as part of the proposed Project because the Project's design includes appropriate drainage devices to prevent erosion and reduce the potential for off-site transport of sediment. Future implementing projects also may be required to identify additional measures if necessary to demonstrate compliance with the County's WPO. Mitigation Measure 6D would not apply to the proposed Project because the portion of Alta Road which crosses O'Neal Canyon was previously constructed in association with the George F. Bailey County Correctional Facility, and because the Project does not propose to take access from this portion of Alta Road.

Project-Specific Mitigation

Based on the analysis contained within this sub-chapter, it has been determined that implementation of the proposed Project would not require any Project-specific mitigation measures because significant impacts would not occur because the project will implement BMPs as required through compliance with the WPO.

3.1.3.6 Conclusion

As indicated in the above analysis, the proposed Project would comply with all local, state, and federal regulations pertaining to hydrology and water quality and no significant impact would occur. The Project has been designed to comply with the County's WPO, which was adopted in part to ensure that all projects within the County comply with appropriate state and federal laws regulating runoff and water quality. These provisions also would ensure that the Project would not result in substantial erosion and would not substantially alter the drainage patterns of the site or surrounding areas. Finally, the Project would not create any flood hazards to downstream properties and is not located in a portion of the County that is subject to significant flood hazards. Based on the analysis contained in this section, it is concluded that the proposed Project would not result in any significant direct or cumulative impacts to hydrology or water quality.



Source: Kimley Horn Associates

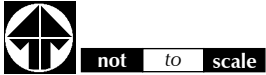
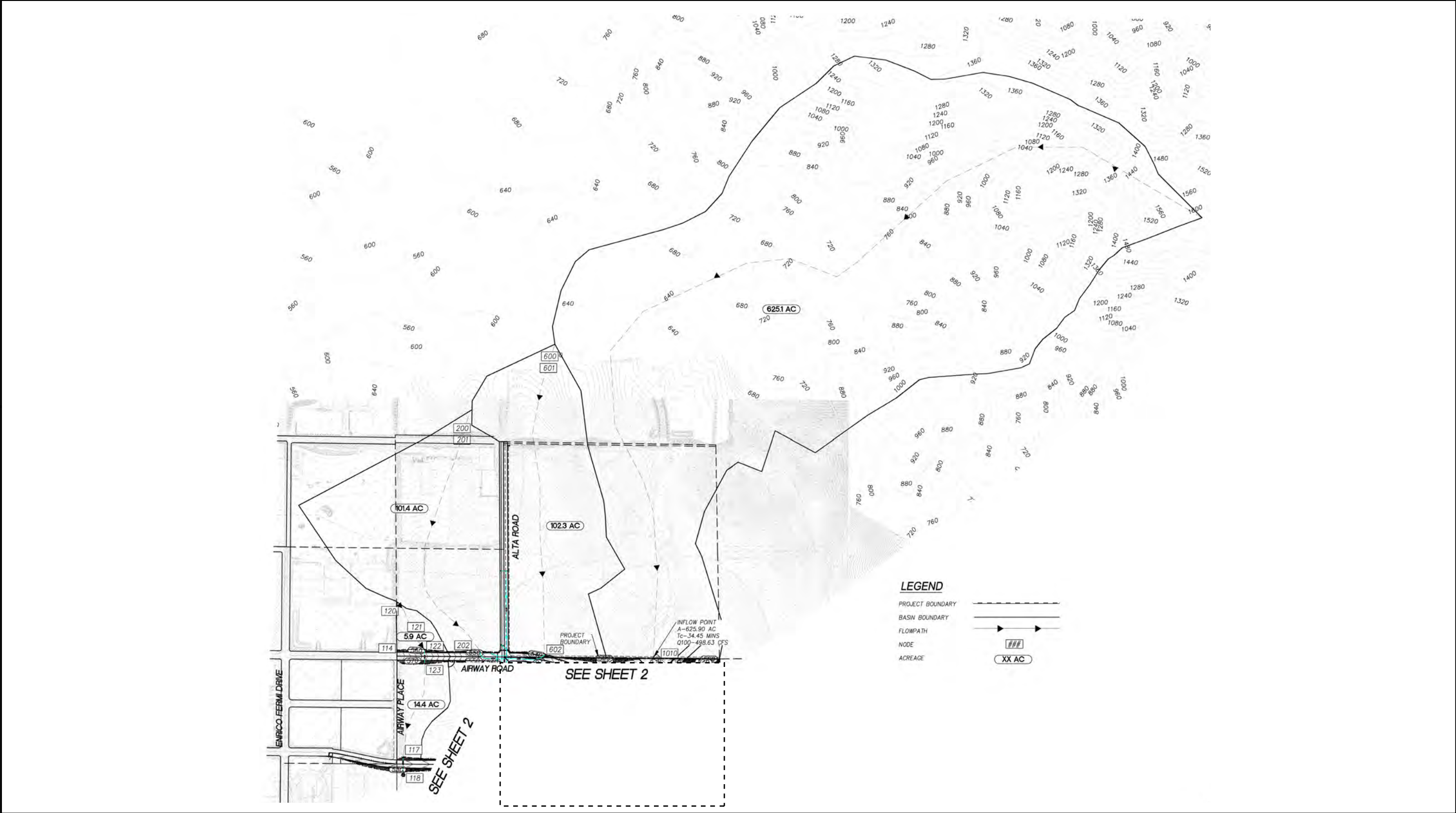


FIGURE 3.1.3-1
Existing Conditions Hydrology Map



Source: Kimley Horn Associates

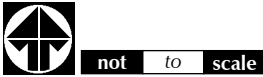
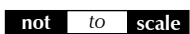
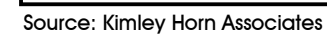
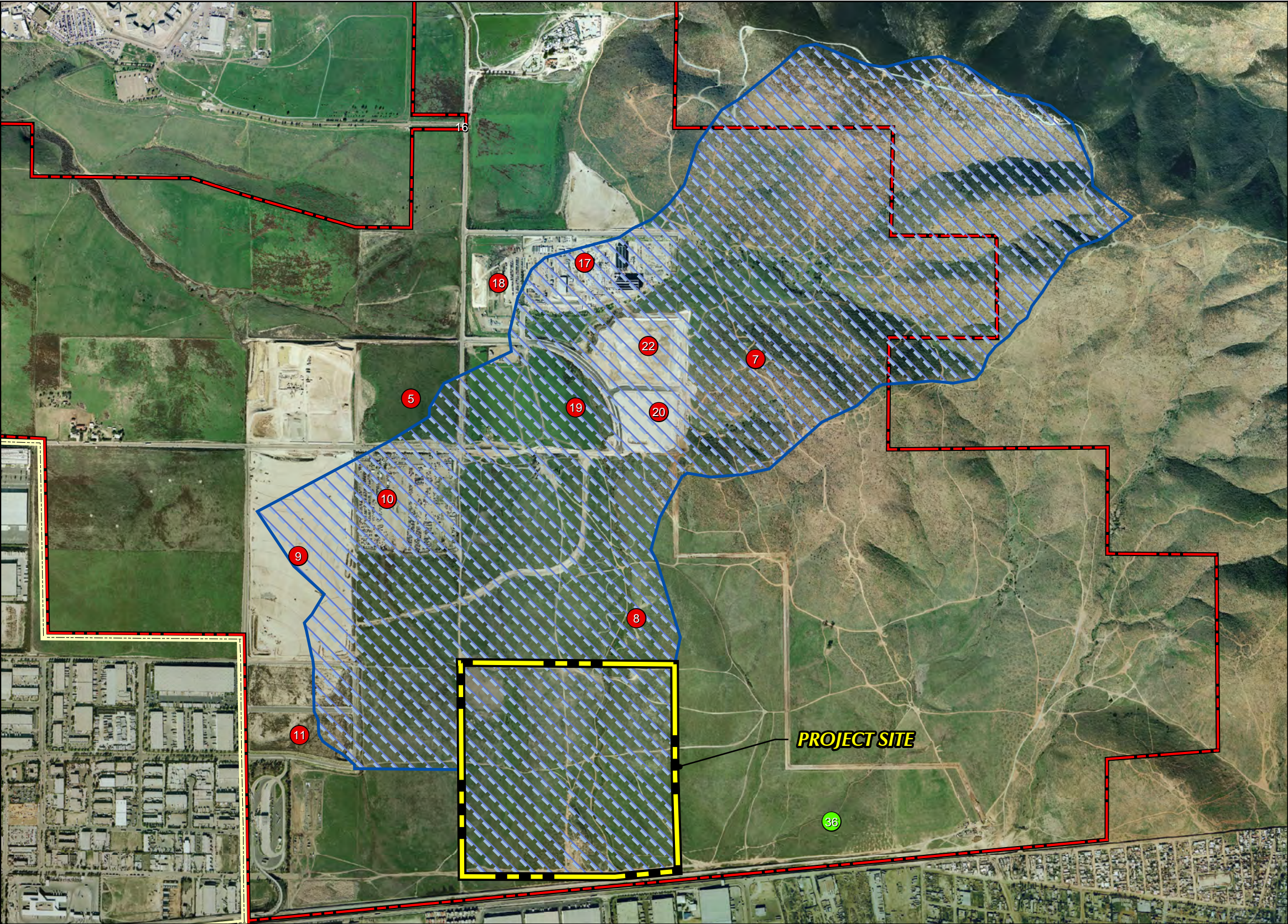


FIGURE 3.1.3-2
Proposed Conditions Hydrology Map (sheet 1 of 2)





CUMULATIVE PROJECTS

County of San Diego Projects

- East Otay Mesa Specific Plan
- Watershed Impacting Project Site
- 5. East Otay Auto Storage
- 7. Otay Hills Quarry
- 8. Otay Crossings Commerce Park
- 9. Otay Mesa Travel Plaza
- 10. East Otay Temporary Fire Facility
- 11. Burke Minor Subdivision
- 17. Otay Mesa Generating Project
- 18. Power Plant Laydown Site
- 19. Paseo De La Fuente
- 20. Vulcan Site Grading Plan
- 22. Vulcan Batching Plant

Other Projects

- 36. SR-11 and Otay Mesa East Port of Entry

NOTE: Cumulative Study Area is defined as watershed and tributaries upstream from project site.

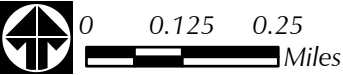


FIGURE 3.1.3-4
Cumulative Study Area - Hydrology and Water Quality

3.1.4 Utilities and Service Systems

The previously certified EIR for the East Otay Mesa Specific Plan (EOMSP) identified significant and mitigable impacts for Public Services and Utilities related to the generation of solid waste. Mitigation measures were identified to reduce potential impacts related to solid waste to below a level of significance. The proposed Project and future development permits for the Project site would be required to comply with these mitigation measures, which would reduce Project impacts related to solid waste to below a level of significance. Chapter 7.0 of this SEIR, *List of Mitigation Measures and Environmental Design Considerations*, includes a summary of all applicable mitigation measures from the EOMSP EIR which would continue to be enforced upon approval of the proposed Project. In addition, the proposed Project and future development permits for the Project site would be required to comply with the solid waste policies established in the EOMSP to minimize the generation of solid waste. Because impacts associated with solid waste have already been determined to be less than significant with incorporation of the applicable mitigation measures, no additional solid waste analysis is warranted in this SEIR.

3.1.4.1 Existing Conditions

Water Services

Public water service within the Project area is provided by the Otay Water District (OWD). The OWD provides water service to approximately 191,500 people within its 80,140 acre (approximately 125.5 square mile) service area, in southeastern San Diego County. The OWD owns 722 linear miles of potable water mains, 93 miles of recycled water mains, 39 potable water reservoirs (storage capacity: 197.3 million gallons), 4 recycled water reservoirs (storage capacity: 44 million gallons), and has approximately 48,376 water connections.¹ The OWD purchases potable water from the San Diego County Water Authority (SDCWA). Recycled water is supplied by the OWD's Ralph W. Chapman Water Recycling Facility; however, the OWD has entered into an agreement with the City of San Diego to purchase additional recycled water, as needed.²

The Project site is undeveloped and water service is not currently connected to the site. The OWD operates and maintains a 24-inch water main and a 16-inch water main along Alta Road, adjacent to the western boundary of the Project site.

Sewer Service

The Project site is located within the service area of the East Otay Mesa Sewer Maintenance District, which is a Participating Agency of the San Diego Metropolitan Wastewater Joint Powers Authority (Metro Wastewater). Sewer service is currently unavailable to the Project site. The nearest sewer connection to the Project site is located along Enrico Fermi Drive, approximately 2,660 feet west of the Project site. Upon connection to the existing sewer connection, wastewater from the Project site would be conveyed to the Point Loma Wastewater Treatment Plant (WTP) via a system of existing sewer lines and pump stations. The Point Loma WTP has a current capacity of 240 million gallons per day (mgd), and processes approximately 162 mgd per day. Accordingly, the total amount of excess capacity at the Point Loma WTP is estimated at approximately 78 mgd, or 325,000 equivalent dwelling units (EDU).

¹ OWD. "Otay at a Glance." Available at <http://www.otaywater.gov/owd/pages/about/glance.aspx>

² OWD. *Otay Water District Updated 2005 Urban Water Management Plan*. 2007.

Stormwater Drainage Facilities

There are no stormwater drainage facilities in place to convey stormwater runoff from the Project site. In the existing condition, stormwater runoff is conveyed through the site via natural drainage courses and flows south to the U.S./Mexico border, where it is conveyed by a series of culverts and drainage channels before ultimately combining with the Tijuana River.

3.1.4.2 Analysis of Project Effects and Determination as to Significance

East Otay Mesa Specific Plan Final EIR

The EOMSP Final EIR disclosed impacts associated with water and wastewater services. With respect to water services, the EOMSP Final EIR concluded that no significant impacts would occur after compliance with standard mitigation requiring compliance with the then-applicable water demand standards. For wastewater services, the Final EIR concluded that significant impacts would occur, absent mitigation, due to the lack of wastewater treatment and conveyance facilities.

Since approval of the EOMSP in 1994, there have been a number of changes to the planned and/or operational utilities and service systems within the EOMSP area. A master plan has been developed by the Otay Water District which includes plans to service the entire EOMSP, including the proposed Project site. A master plan also has been developed for the East Otay Mesa Sewer Maintenance District that includes a number of financing alternatives. Based on these changed circumstances, the County of San Diego has determined that a supplemental analysis of potential public services impacts is necessary to adequately identify, disclose, and mitigate for impacts that could result from Project implementation.

Water and Sewer Facilities

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on utilities and service systems if any of the following would occur as a result of a Project related component:

- (1) The proposed Project would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.*
- (2) The proposed Project would result in a determination that existing water entitlements and resources are not adequate to serve the project, and/or that new entitlements and resources would be needed.*
- (3) The proposed Project would result in a determination by the wastewater treatment provider, which serves or may serve the project, that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.*

Threshold 1 evaluates the Project's potential to cause physical environmental impacts resulting from the construction of new or expanded water or wastewater facilities. Threshold 2 evaluates the Project's potential to exceed available water supplies. Thresholds 1 and 3 evaluate the Project's potential to exceed existing wastewater treatment capacity and cause the construction of additional wastewater treatment facilities. The construction of new or expanded water or wastewater facilities

and the acquisition of additional water supplies or wastewater treatment capacity could result in significant direct and indirect impacts to the environment in the short- and/or long-term.

Analysis

Water Facilities

Water service would be provided to the site by the OWD. Existing facilities are in place to service the Project site, and the proposed Project would connect to an existing 16-inch water main at the intersection of Alta Road and Airway Road. Improvements to water infrastructure would be necessary on-site and within Alta Road adjacent to the site, and could potentially result in short-term, construction-related impacts to the environment. Figure 1-10 depicts the existing and proposed on- and off-site water infrastructure. Environmental impacts associated with construction have been addressed throughout this SEIR³, and mitigation has been provided in each applicable section of this SEIR to reduce all potential significant, short-term construction impacts to below a level of significance. Therefore, a significant impact due to the construction of water infrastructure as necessary to serve the proposed Project would not occur, or would be mitigated to below a level of significance with application of the mitigation measures provided throughout this SEIR.

Water Supply

At the request of San Diego County, the OWD prepared a Water Supply Assessment Report (WSA) in October 2008 pursuant to Public Resources Code Section 21151.9 and California Water Code Sections 10631, 10656, 10657, 10910, 10911, 10912 and 10915. The WSA was prepared for the proposed Project evaluates the OWD's ability to serve the proposed Project with potable and recycled water from existing and planned resources. A copy of the Project's WSA is included in Appendix K to this SEIR.

According to the WSA, the proposed Project is currently located within the jurisdictions of the OWD, the San Diego County Water Authority (Water Authority), and the Metropolitan Water District of Southern California (Metropolitan). The Water Authority and Metropolitan have an established process that ensures supplies are being planned for and documented to meet future growth. The Water Authority and Metropolitan update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their urban water management plans, and these regular updates are intended to ensure that any revisions to land use plans and annexations are accounted for in the plans. These agencies also identify a planning buffer supply to mitigate against the risks associated with implementation of local and imported supply programs. The planning buffer identifies an additional increment of water that could potentially be developed if other supplies are not implemented as planned. As part of implementation of the planning buffer, Metropolitan periodically evaluates supply development to ensure that the region is not under or over developing supplies. Managed properly, the planning buffer will help ensure that the southern California region, including San Diego County, will have adequate supplies to meet future demands.

The WSA Report for Otay Business Park Project identifies that the water demand projections for the proposed Project are included in the water demand and supply forecasts within the water resources

³ Impacts associated with the construction of off-site water and sewer facilities are addressed under the issue areas of Air Quality, Biological Resources, Cultural Resources, Noise, and Paleontological Resources.

planning documents of the OWD, the Water Authority, and Metropolitan. Water supplies necessary to serve the demands of the proposed Business Park project, along with existing and other projected future users, as well as the actions necessary to develop these supplies, are also identified in the water supply planning documents of the OWD, the Water Authority, and Metropolitan. The potable and recycled water demand projections and supply requirements for the proposed Project are currently within the water resources planning documents of the OWD, Water Authority, and Metropolitan.

The WSA Report includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, or agreements relevant to the identified water supply needs for the proposed Project. The WSA Report demonstrates and documents that sufficient water supplies are planned to be made available over a 20-year planning horizon for normal and in single dry and multiple dry years to meet the projected demand of the proposed Project and the existing and other planned development projects within the OWD.

Table 3.1.4-1, *Projected Balance of Water Supplies and Demands – Normal Year Conditions*, presents the forecasted balance of water demands and required supplies for the OWD service area under average or normal year conditions. Table 3.1.4-2, *Projected Balance of Water Supplies and Demands – Single Dry Year Conditions*, presents the forecasted balance of water demands and supplies for the OWD service area under single dry year conditions. Table 3.1.4-3, *Projected Balance of Water Supplies and Demands – Multiple Dry Year Conditions*, presents the forecasted balance of water demands and supplies for the OWD service area under multiple dry year conditions for the five year period ending in 2015. Multiple dry year conditions for periods ending 2020, 2025, and 2030 are provided in the OWD revised 2005 UWMP. The projected potable and recycled water demand and supply requirements shown in Table 3.1.4-1 through Table 3.1.4-3 are from the OWD revised 2005 UWMP and include those of the proposed Project. Hot, dry weather may generate urban water demands that are about seven percent greater than normal. This percentage was utilized to generate the dry year demands shown in Table 3.1.4-2 and Table 3.1.4-3. The recycled water supplies are assumed to experience no reduction in a dry year.

The WSA Report prepared for the Project demonstrates that sufficient water supplies are planned and identifies and documents the actions necessary to develop these supplies to meet projected water demands of the proposed Project and the existing and other reasonably foreseeable planned development projects within the OWD for a 20-year planning horizon, in normal and in single and multiple dry years. Therefore, based on the Project-specific WSA, the OWD, Water Authority and Metropolitan would have sufficient water supplies available to serve the project from existing water entitlements and resources, and no new or expanded entitlements and resources would be needed beyond those already identified in the RUWMP or the OWD UWMP. Therefore, with implementation of the proposed Project, impacts to water supply would be less than significant.

Wastewater Conveyance Facilities

Sewer service is not available to the site under existing conditions and implementation of the Project would require the extension of sewer infrastructure. As depicted on Figure 1-9 and discussed in EIR Section 1.2.2.1, the Project proposes to extend sewer infrastructure to an existing connection at the intersection of Enrico Fermi Drive and Via De La Amistad. The proposed sewer flows would be conveyed north from the proposed pump station on Lot 38 of the proposed Project by means of an alternate alignment via a proposed dual 8-inch force main (FM ALT) along Alta Road and Siempre Viva Road rights-of-way; thence gravity flow south in a proposed 18-inch sewer main along Enrico

Fermi Drive right-of-way and ultimately connecting to an existing City of San Diego 27-inch sewer main (EOM 6 connection point per the East Otay Mesa Basin No. 6 Regional Sewer Study) at the intersection of Via De La Amistad and Enrico Fermi Drive. Sewer improvements would require construction of approximately 5,500 feet of new force mains and sewer lines as necessary to connect to the existing 27-inch sewer main. The pump station proposed on-site within Lot 38 of the Project would incorporate mitigation measures (i.e., chemical insertion) to control potential increased odors and corrosion effects from pumping operations. Improvements to sewer infrastructure could potentially result in short-term, construction-related impacts to the environment. Environmental impacts associated with construction have been addressed throughout this EIR³, and mitigation has been provided in each applicable section for all potential significant short-term impacts. Therefore, a significant impact due to the construction of sewer infrastructure as necessary to serve the proposed Project would not occur, or would be mitigated to below a level of significance with application of the mitigation measures provided throughout this EIR.

Wastewater flows from a majority of the EOMSP, including flows from the Project, would be conveyed by the Otay Mesa Trunk Sewer (OMTS) to existing sewer facilities adjacent to and west of Interstate 5 and ultimately to the Point Loma WTP. The OMTS has been sized to accommodate ultimate wastewater flows of 3 mgd. The Final EIR for the EOMSP evaluated impacts that would occur to sewer conveyance facilities upon full build-out of the EOMSP and determined that sewer conveyance infrastructure in Otay Mesa would not have adequate capacity for wastewater flows that would be generated by full build-out of the land uses planned by the EOMSP. The EOMSP EIR identified that the OMTS could accommodate flows up to 1.0 mgd from the County portion of Otay Mesa prior to exceeding the capacity of the facility, as it was estimated that the City portion of Otay Mesa would utilize the remaining 2.0 mgd capacity. The maximum sewer flow of 1.0 mgd was identified in EOMSP Final EIR Mitigation Measure 11C.

According to the East Otay Mesa Basin No. 6 Regional Sewer Study (which includes the Project site), total average flows under buildout conditions are projected to comprise only 0.93 mgd (including flows from the portions of the EOMSP not included in Basin No. 6). As such, implementation of the proposed Project would be consistent with EOMSP Final EIR Mitigation Measure 11C and would not exceed the capacity of wastewater conveyance systems; therefore, no new impacts are identified.

Wastewater Treatment Facilities

Wastewater from the Project site would be conveyed to the Point Loma WTP. The Point Loma WTP processes approximately 162 mgd, approximately 78 mgd less than its current operating capacity. As discussed in EIR Section 1.2.2.1, the Project is projected to generate 161,600 gallons of wastewater per day (0.161 mgd), or approximately 673 EDUs. This amount of wastewater would represent approximately 0.21-percent of the current available capacity at the Point Loma WTP. Because adequate wastewater treatment capacity is available, implementation of the proposed Project would not result in a significant impact to Metro Wastewater's wastewater treatment capabilities and mitigation would not be required.

Stormwater Drainage Facilities

Guidelines for the Determination of Significance

The Project would have a significant adverse effect on utilities and service systems if the following would occur as a result of a Project-related component:

- (4) *The proposed Project would require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.*

Threshold 4 is included to address potential impacts that might result from the construction of new storm water facilities. The construction of new or expanded stormwater drainage facilities could result in significant direct and indirect impacts to the environment in the short- and/or long-term.

Analysis

There are no existing stormwater drainage facilities to convey stormwater runoff from the Project site, and no public stormwater drainage facilities are proposed as part of the EOMSP. As established by the EOMSP, development projects in the southern watershed region (like the proposed Project) would be required to provide on-site detention basins to ensure that peak runoff flows traveling south to Mexico do not exceed historical rates.

As depicted on Figure 1-8 and discussed in Section 2.5, *Hydrology and Water Quality*, the Project proposes to construct two detention basins on-site (within the southwest and southeast portions of the site) and a storm drain conveyance system to minimize flood hazard risks associated with stormwater runoff. Environmental impacts associated with construction of on-site detention basins have been addressed throughout this EIR. As discussed in Section 2.5, and illustrated on Table 2.5-1, *Pre- and Post-Development 100-Year Storm Flows*, implementation of the Project would not increase peak runoff flows above existing levels. Accordingly, implementation of the Project would not increase the rate or amount of runoff leaving the Project site and would not require the construction of new or expanded off-site drainage facilities which would result in significant environmental effects, except as identified and mitigated for throughout this SEIR.

3.1.4.3 Cumulative Impact Analysis

Cumulative Impacts Identified by the EOMSP Final EIR

The EOMSP Final EIR (1994) did not identify or disclose any cumulatively significant impacts to utilities and service systems.

Project-Specific Cumulative Impact Analysis

Cumulative Study Area

A study area was defined in order to assess the cumulative effect of the Project's impacts associated with utilities and service systems. The cumulative study area for water service was established based primarily on the OWD Division 2 service area, excluding those portions of Division 2 which occur northerly of the Otay River Valley. Areas to the north of the Otay River Valley would be served by separate wastewater and stormwater conveyance systems, and were therefore excluded from the cumulative study area. Although projects located northerly of the Otay River Valley within the OWD Division 2 service area are cumulatively considerable in terms of water supply, the cumulative effect of these development projects already is accounted for in the Project-specific WSA prepared by the OWD. The cumulative study area for wastewater service encompasses the East Otay Mesa Sewer Maintenance District, which includes all properties that would contribute wastewater flows to the OMTS. The cumulative study area for drainage facilities encompasses 1,020 acres of the Otay Mesa community, and includes all lands located upstream that would contribute stormwater

flows through the proposed Project site. Figure 3.1.4-1, *Cumulative Study Area – Utilities and Service Systems*, depicts the extent of the cumulative study area and lists those projects that are considered in the analysis.

As shown in Table 1-7, three projects within the County of San Diego (identified as projects 1, 15, and 16 in Table 1-7) and two projects within the City of San Diego (projects 24 and 25) are identified as having significant but mitigable impacts to utilities and service systems primarily due to a lack of infrastructure. Both the projects identified within the City of San Diego are located outside of the project's cumulative study area for utilities and service systems. It should be noted, however, that the CEQA review for several of the Projects listed in Table 1-7 has not been completed, and it is possible that more projects within the cumulative study area could be identified as having significant impacts to utilities and service systems once the CEQA analysis is complete. Moreover, even projects that do not result in significant impacts also could be cumulatively considerable if such impacts, when combined with project impacts, result in a significant environmental effect.

Cumulative Analysis for Utility/Service System Infrastructure Construction

As part of the proposed Project, a number of off-site improvements would be necessary in order to facilitate water, sewer, and stormwater drainage services to the site. Cumulative impacts associated with these off-site improvements are addressed under appropriate issue areas throughout this EIR, including the issue areas of Air Quality, Biological Resources, Cultural Resources, Noise, and Paleontological Resources. In each of these issue areas, mitigation has been identified to reduce or eliminate significant environmental effects associated with the constructions of water, sewer, and stormwater drainage facilities necessary to serve the proposed Project.

Cumulative Analysis for Water Supplies and Services

The OWD WSA (October 2008) evaluates the District's ability to supply water to all past, present, and reasonably foreseeable projects within its service boundaries, including the proposed Project. The WSA therefore includes a cumulative analysis of the Project's anticipated impacts to water services and supplies. As described more fully in SEIR Section 3.1.4.2, the WSA Report prepared for the Project demonstrates that sufficient water supplies are planned and identifies and documents the actions necessary to develop these supplies to meet projected water demands of the proposed Project and the existing and other reasonably foreseeable planned development projects within the OWD for a 20-year planning horizon, in normal and in single and multiple dry years. Therefore, based on the Project-specific WSA, the OWD, Water Authority and Metropolitan would have sufficient water supplies available to serve the project from existing water entitlements and resources, and no new or expanded entitlements and resources would be needed beyond those already identified in the RUWMP or the OWD UWMP. Therefore, with implementation of the proposed Project, cumulatively significant impacts to water supplies would not occur.

Cumulative Analysis for Wastewater/Sewer Facilities

The Final EIR for the EOMSP evaluated impacts that would occur to sewer conveyance facilities upon full build-out of the EOMSP and determined that implementation of the EOMSP would result in significant impacts to sewer conveyance infrastructure in Otay Mesa. The EOMSP Final EIR imposed a mitigation measure (Mitigation Measure 11C) that limited near-term development within the EOMSP to 1.0 million gallons of wastewater per day. It was determined that Mitigation Measure 11C would reduce impacts to sewer conveyance facilities to less than significant levels until such a time that adequate sewer conveyance facilities were developed to accommodate additional

development within the EOMSP area. As discussed in the East Otay Mesa Basin No. 6 Regional Sewer Study (May 2009), projected average daily flows to the OMTS from the EOMSP upon buildout would comprise approximately 0.71 mgd. As such, implementation of the proposed Project would be consistent with EOMSP Final EIR Mitigation Measure 11C, and no new impacts are identified.

As discussed above in Section 3.1.4.2 under the analysis of wastewater treatment facilities, wastewater from the Project site would be conveyed to the Point Loma WTP. The Point Loma WTP processes approximately 162 mgd, approximately 78 mgd less than its current operating capacity. As discussed in EIR Section 1.2.2.1, the Project is projected to generate 161,600 gallons of wastewater per day (0.161 mgd), or approximately 673 EDUs. This amount of wastewater would represent approximately 0.20-percent of the current available capacity at the Point Loma WTP. In addition, planned improvements to the Point Loma WTP will increase wastewater treatment capacity to serve an estimated population of 2.9 million through the year 2050. Nearly 340 million gallons of wastewater will be generated each day by that year⁴. Therefore, adequate capacity currently exists to serve the proposed Project and other cumulative developments with wastewater treatment services, and planned upgrades to this facility will ensure that wastewater generated from future growth also will be accommodated. Therefore, implementation of the proposed Project would not result in a cumulatively significant impact to Metro Wastewater's wastewater treatment capabilities and mitigation would not be required.

Cumulative Analysis for Stormwater Facilities

The proposed Project site is located at the southern end of two drainage basins encompassing approximately 1,020 acres. The Project's proposed on-site storm system has been designed to accommodate all existing flows from off-site properties while providing for appropriate detention of on-site run-off. All flows from the on- and off-site portions of the Project site would be discharged to the south of the site, where it would be conveyed by a series of culverts and drainage channels before ultimately discharging into the Tijuana River (following appropriate treatment for water quality). As such, a cumulatively significant impact associated with stormwater facilities would not occur.

3.1.4.4 Significance of Impacts Prior to Mitigation

As indicated in the analysis provided throughout this section, implementation of the proposed Project would not result in any significant direct or cumulative impacts to utilities and service systems. The proposed Project is, however, located within the EOMSP, and would therefore be required to comply with the mitigation measures identified in the EOMSP Final EIR for utilities and service systems, which are summarized below in SEIR Section 3.1.4.5.

3.1.4.5 Mitigation

Mitigation Measures from the EOMSP Final EIR

Mitigation measures were identified by the EOMSP Final EIR (1994) to address impacts to Utilities and Service Systems which could result from implementation of the EOMSP, and included the following:

⁴ Source: Point Loma Wastewater Treatment Plant and Ocean Outfall Annual Monitoring Report, 2007. Available on-line at: <http://www.sandiego.gov/mwwd/environment/plantmonitoring.shtml#loma>.

- 11B. Domestic water demand shall be reduced through use of the Best Management Practices water conservation measures as identified by the Metropolitan Water District and the San Diego County Water Authority. This shall include preparation of a water conservation plan to document these measures.*
- 11C. No development beyond that which can be served by the initial 1.0 million gallons per day capacity shall be allowed until long-term sewer service capacity has been provided. In addition, no development shall be allowed until all the necessary infrastructure has been constructed and facilities are operable.*

These mitigation measures have been incorporated by the proposed Project and would serve to reduce Project-related effects to utilities and service systems. Project compliance with Mitigation Measure 11B would be fulfilled through adherence to the EOMSP requirements for landscaping as well as through compliance with the County's Water Conservation and Landscaping Ordinance and Design Manual. In addition, future buildings on-site would be built with water efficient fixtures as required by the building code.

Mitigation Measure 11C limits near-term development within the EOMSP to 1.0 million gallons of wastewater per day. As discussed in the East Otay Mesa Basin No. 6 Regional Sewer Study (May 2009), projected average daily flows to the OMTS from the EOMSP upon buildout would comprise approximately 0.71 mgd. As such, implementation of the proposed Project would be consistent with EOMSP Final EIR Mitigation Measure 11C.

Project-Specific Mitigation

As identified in the analysis throughout this Chapter, significant impacts to utilities and service systems beyond that which was identified in the Final EIR for the EOMSP would not occur with implementation of the proposed Project. Therefore, mitigation would not be required. However, the Project applicant will be required as a condition of approval to construct or participate in funding for necessary sewer improvements to serve the Project (see Chapter 7.2.5).

3.1.4.6 Conclusion

Implementation of the proposed Project would not result in significant direct or cumulative impacts to utilities and service systems, and mitigation beyond the mitigation measures identified in the EOMSP Final EIR would not be required.

Table 3.1.4-1 PROJECTED BALANCE OF WATER SUPPLIES AND DEMANDS – NORMAL YEAR CONDITIONS

Description	FY 2010	FY 2015	FY 2020	FY 2025	FY 2030
Water Authority Supply	45,772	52,349	59,799	66,560	75,108
Recycled Water Supply	4,040	4,684	5,430	6,294	7,297
Groundwater Supply	0	0	0	0	0
Total Required Supply	49,812	57,033	65,229	72,854	82,405
Total Projected Demand	49,812	57,033	65,229	72,854	82,405
Supply Deficit	0	0	0	0	0

Note: Values shown are in acre feet.

Source: Otay Water District, October 2008

Table 3.1.4-2 PROJECTED BALANCE OF WATER SUPPLIES AND DEMANDS – SINGLE DRY YEAR CONDITIONS

Description	FY 2010	FY 2015	FY 2020	FY 2025	FY 2030
Water Authority Supply	49,259	56,341	64,365	71,660	80,876
Recycled Water Supply	4,040	4,684	5,430	6,294	7,297
Groundwater Supply	0	0	0	0	0
Total Required Supply	53,299	61,025	69,795	77,954	88,173
Total Projected Demand	53,299	61,025	69,795	77,954	88,173
Supply Deficit	0	0	0	0	0

Note: Values shown are in acre feet. Dry year demand assumed to generate a 7% increase in demand over normal conditions for each year in addition to new demand growth.

Source: Otay Water District, October 2008

Table 3.1.4-3 PROJECTED BALANCE OF WATER SUPPLIES AND DEMANDS – MULTIPLE DRY YEAR CONDITIONS

Description	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Water Authority Supply	50,675	52,091	53,509	54,925	56,341
Recycled Water Supply	4,169	4,298	4,426	4,555	4,684
Groundwater Supply	0	0	0	0	0
Total Required Supply	54,844	56,389	57,935	59,480	61,025
Total Projected Demand	54,844	56,389	57,935	59,480	61,025
Supply Deficit	0	0	0	0	0

Note: Values shown are in acre feet. Dry year demands assumed to generate a 7% increase in demand over normal conditions for each year in addition to new demand growth.

Source: Otay Water District, October 2008

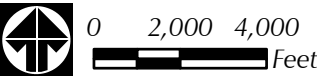
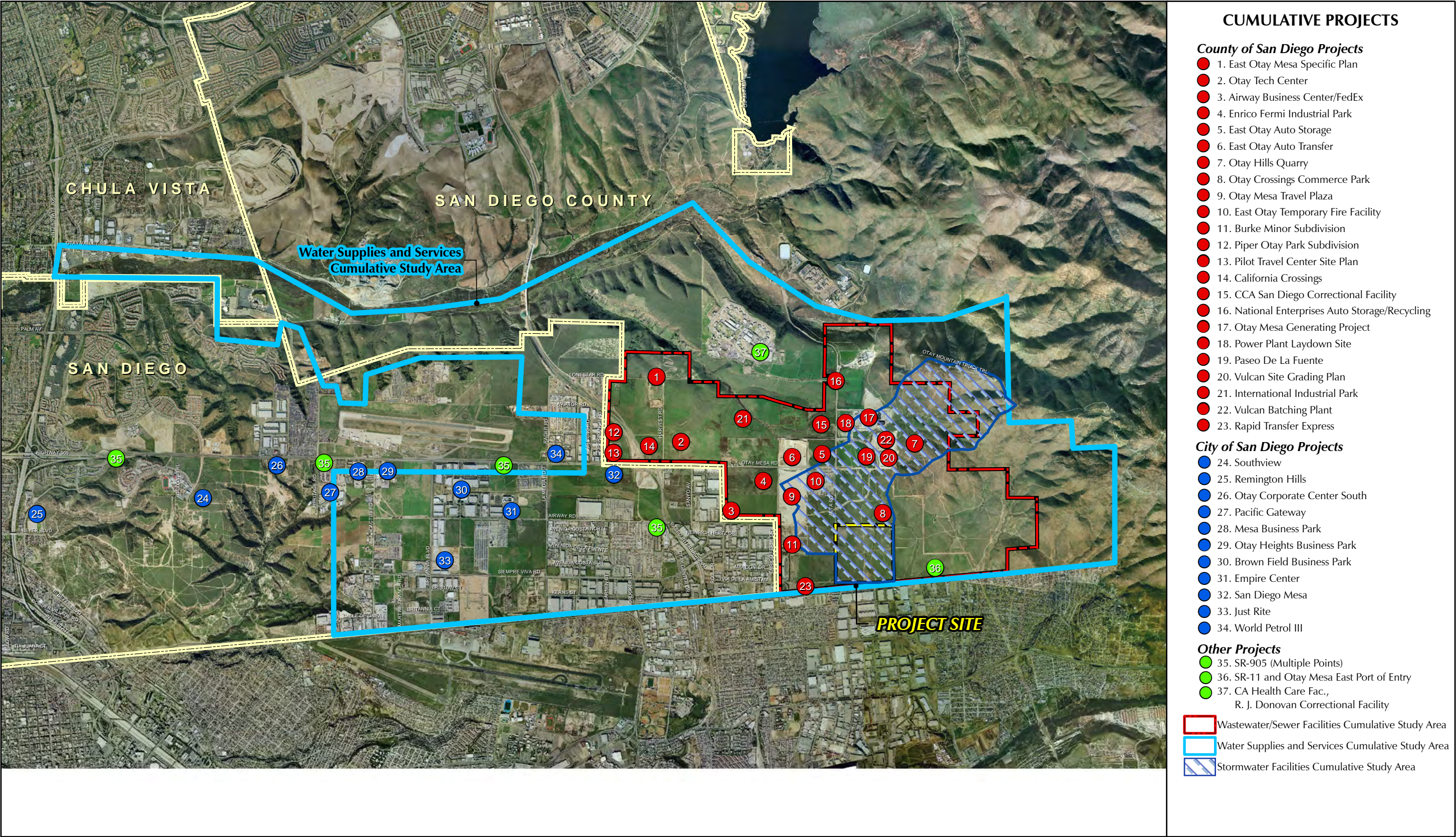


FIGURE 3.1.4-1
Cumulative Study Area - Utilities and Service Systems

3.2 Effects Found Not Significant During Initial Study

The following issues were determined not to be potentially significant during the review of previously certified EIR: Aesthetics, Agricultural Resources, Land Use and Planning, Mineral Resources, Population and Housing, and Recreation. A copy of the Environmental Review Update Checklist Form, dated June 12, 2008, is provided in Appendix A of this EIR. A summary of the findings from this document for these issue areas is provided below.

3.2.1 Aesthetics

The previously certified EIR for the EOMSP concluded that significant but mitigable impacts related to visual quality/land use alteration would occur, largely due to grading associated with the hillside residential portions of the Specific Plan area. However, no significant landform alteration or visual impacts were expected from development of the flatter industrial and commercial portions of the Specific Plan area. The proposed project is in the flatter industrial portion of the Specific Plan area. Future development of the individual lots would consist of one- or two-story structures and would be required to comply with the development regulations of the EOMSP, including building design and landscape requirements. Accordingly, implementation of the Project would not adversely impact local visual quality or visual character and impacts would not be substantially greater than was identified in the previous EIR. Mitigation measures contained in the previously certified EIR pertaining to aesthetics are not applicable to the proposed project.

3.2.2 Agricultural Resources

The EIR, found the loss of important farmland (Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance) to be less than significant as there was limited area with this classification and agricultural use could continue in the Specific Plan area as an interim use prior to buildout. In addition, active agricultural activities were not in evidence at the time of certification of the original EIR and no mitigation measures were deemed necessary. The Project site is designated as Farmland of Local Importance and does have soil types classified as Prime Agricultural soils. In addition, the Project site is not under a Williamson Act contract. However, the Project site has not been used for any agricultural purpose for many years and there are no active agricultural operations within a 10-mile radius of the site. Therefore, impacts to agricultural resources would not be substantially greater than was disclosed in the previous EIR.

3.2.3 Land Use and Planning

The previously certified EIR for the EOMSP identified significant but mitigable land use impacts related to conversion of land use from undeveloped or historical agriculture to industrial/commercial/residential use, and compatibility issues between existing/proposed residential development and proposed industrial/commercial development. Compatibility issues were also raised regarding impacts to future residences from the State Prison and County detention facility, and impacts to the boundary monument and U.S./Mexico border. The Project site is located at the southern end of the Specific Plan area and there are no existing or proposed residences in the vicinity of the site. In addition, the proposed Project would ultimately develop the site with land uses that are consistent with the EOMSP. Future development of the site would be required to comply with all applicable use regulations and development standards established by the EOMSP. Accordingly, implementation of the Project would not result in impacts substantially greater than was disclosed by the previous EIR. Of the mitigation measures contained in the previous EIR, only one (1.A.1. -

Adherence to noise mitigation measures required in Section 4.8 of the previous EIR) applies to the project. See Chapter 2.6 of this document for discussion and analysis pertaining to potential noise impacts.

3.2.4 Mineral Resources

No impacts to mineral resources were anticipated by the previous EIR. Prospects were reported in the San Ysidro Mountains to the east of the Specific Plan area and in fact an application for a mining operation at the eastern boundary of the Specific Plan area is in process with the County. That site is at the western base of the San Ysidro Mountains and is approximately one mile northeast of the proposed project site. However, the Project site has not been actively mined and contains no known mineral resources. There are no active or abandoned mines or quarries in the Project vicinity. Implementation of the Project would not result in significant impacts to mineral resources and impacts would not be substantially greater than was identified in the previous EIR.

3.2.5 Population and Housing

The EIR for the EOMSP concluded that implementation of the plan would result in a positive socioeconomic benefit and would not result in adverse population and housing impacts due to the geographic constraints of the Specific Plan area. No mitigation measures were deemed necessary. In addition, as discussed in EIR Section 1.8, implementation of the Project would be consistent with the land uses designated for the site by the EOMSP and the proposed Project would not result in growth-inducing impacts. Accordingly, the proposed Project would not result in impacts substantially greater than was disclosed by the previous EIR.

3.2.6 Recreation

No significant impacts to parks or trails were identified in the previously certified EIR, thus, no mitigation measures were deemed necessary. The Project does not propose any residential use, including but not limited to a residential subdivision, mobile home park, or construction for a single-family residence that may increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Therefore, the Project would not be required to construct or expand recreational facilities. Accordingly, implementation of the proposed project would not result in the construction or expansion of recreational facilities which would have an adverse physical effect on the environment, and impacts would not be substantially greater than was identified in the previous EIR.